House of Commons

Foreign Affairs Committee

THE BIOLOGICAL WEAPONS GREEN PAPER

First Report of Session 2002–03

HC 150 [incorporating HC 1248-i, Session 2001–02]

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Session 2001–2002

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House of Commons

Foreign Affairs Committee

THE BIOLOGICAL WEAPONS GREEN PAPER

First Report of Session 2002–03

Report, together with Proceedings of the Committee, Minutes of Evidence and Appendices

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FIRST REPORT

LIST OF CONCLUSIONS AND RECOMMENDATIONS

(a) **We conclude that the level of threat to the United Kingdom from biological weapons must not be underestimated. We commend the Government's commitment to dealing with the issue internationally, and its decision to launch a debate about how to tackle the threat through publication of a Green Paper (paragraph 9).**

(b) **We conclude that the threat from biological weapons is a global problem, which—contrary to the view of parts of the US administration—cannot be addressed through national measures alone. We commend the Government's commitment to employ 'all the tools in the toolbox', despite their imperfections, to counter the threat of biological and toxin weapons (paragraph 15).**

(c) **We recommend that the Government consider the merits of establishing a co-ordinating mechanism, to assist weaker BTWC States Parties in the development and implementation of effective criminal legislation to translate the Convention's prohibitions into their own domestic laws (paragraph 17).**

(d) **We commend the Government's decision to focus on establishing an effective process for investigation into suspected non-compliance with the Biological and Toxin Weapons Convention at the Resumed Fifth Review Conference. (Paragraph 22).**

(e) **We recommend that the Government consider measures to strengthen the capacity of the United Nations system—including the World Health Organisation—for investigating suspicious outbreaks or allegations of biological weapons use, in advance of negotiations on this matter between States Parties in 2004 (paragraph 23).**

(f) **We recommend that the Government consider carefully the merits of proposing the establishment of a secretariat, with a mandate similar to that of the Organisation for the Prohibition of Chemical Weapons, to enhance international monitoring of States Parties, compliance with the BTWC and to assist States Parties in ensuring compliance (paragraph 24).**

(g) **We recommend that, in the light of current threats to the security of the United Kingdom, the Government take steps to strengthen its control over biotechnological research in British universities and research institutions (paragraph 31).**

(h) **We further recommend that the Government consider the establishment of a central authority responsible for control of dangerous pathogens in the United Kingdom (paragraph 32).**

(i) **We fully endorse the proposal outlined in the Green Paper for the development of a new convention on the physical protection of dangerous pathogens (paragraph 34).**

(j) **We welcome the Government's decision to make the implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification one of its priorities at the BTWC Fifth Review Conference (paragraph 35).**

(k) **We note that the BTWC Review Conference agreed to promote common understanding and effective action on "national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins," and we recommend that the Government do its utmost to assist States Parties to the BTWC in drawing up and implementing such national mechanisms (paragraph 36).**

(l) **We recommend that the Government take steps to promulgate an international code of conduct for scientists working with dangerous pathogens, even before the States Parties to the BTWC consider this matter in 2005 (paragraph 37).**

(m) **We congratulate the Government on achieving many of its objectives at the Resumed Fifth Review Conference (paragraph 39).**

(n) **We recommend that, in its response to this Report, the Government outline how it hopes to proceed towards achieving greater transparency between States Parties about legitimate dual-use capabilities which might be in danger of being misconstrued or misused (paragraph 40).**

The Foreign Affairs Committee has agreed to the following Report:

THE BIOLOGICAL WEAPONS GREEN PAPER

1. In April 2002, the Government published a Green Paper, which focuses on the arms control pillar of the UK strategy to defend against the biological weapons threat and specifically on the 1972 Biological and Toxin Weapons Convention (BTWC). The BTWC "represents the legal centre piece of international co-operative efforts to counter BW and has been the focal point of recent international co-operative efforts".[1]

2. The Green Paper appears to have been prompted by the failure, in November 2001, of a group of states (the Ad Hoc Group of States Parties, or AHG) to agree consensus on the text of a Protocol to strengthen the BTWC. After seven years of negotiations among the AHG, this failure was deeply disappointing. Nonetheless, the Government "considers that efforts to strengthen the Convention must continue, and that a range of international and national measures can and should be taken, both to strengthen the Convention and to counter the threat from BW."[2] The Green Paper accordingly sets out options for strengthening the BTWC, and also outlines the "five specific areas for immediate action."[3] The Green Paper was published well in advance of the Resumed Fifth BTWC Review Conference, which commenced on 11 November 2002. The outcome of the Conference is summarised in an attached FCO memorandum.[4]

3. On 22 October 2002, we heard oral evidence from Mr Tim Dowse and Mr Patrick Lamb, respectively Head and Deputy Head of the Non-Proliferation Department at the Foreign and Commonwealth Office. We have also received written memoranda relating to the Green Paper, for which we are grateful. This Report summarises our own considerations on the threat from biological weapons, and international measures to control them.

The nature of the threat

4. Our predecessor Foreign Affairs Committee noted the "horrific potential" of bio-terrorism, highlighting, for example, the assessment of an unclassified FCO report issued on 4 February 1998 that "One hundred kilograms of anthrax released from the top of a tall building in a densely populated area could kill up to three million people."[5]

5. In 1999, the Government believed that "So far, very few terrorist groups have shown an interest in biological or chemical materials ...The current threat to UK interests [from terrorist attack using biological and chemical agents] is low."[6] This assessment has been reconsidered in the light of the recent terrorist attacks. On 22 October, Mr Dowse told us that "The present assessment, and this is of course based partly on evidence that was discovered in Afghanistan ... is that there are certainly terrorist groups that are interested in acquiring chemical and biological weapons. There are terrorist groups, and al Qaeda was one, that have taken active steps to acquire such weapons. We have no evidence as of this moment that any have succeeded."[7]

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[1] Foreign and Commonwealth Office, *Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons*, Cm 5484, April 2002, para 8.
[2] Cm 5484, para 10.
[3] Cm 5484, para 54.
[4] Ev 15.
[5] Foreign Affairs Committee, Eighth Report of Session 1999–2000, *Weapons of Mass Destruction*, HC 407, paras 2 and 123.
[6] *Defending against the Threat of Biological and Chemical Weapons*, United Kingdom Ministry of Defence paper, July 1999, available at: http://www.mod.uk/issues/cbw/.
[7] Q 25.

6. As the Green Paper points out, the anthrax attacks which took place in the United States at the end of 2001 "demonstrated the inherent potential of such material to have massive psychological, political and economic/financial effects, as well as causing illness or death, for relatively little effort."[8] Although none of the mass casualty terrorist attacks of the recent past has involved biological weapons, and although the Government assesses that none of the terrorist groups threatening the United Kingdom has in fact succeeded in obtaining biological weapons, bio-terrorism remains a possibility which must be addressed with the utmost seriousness.

7. The threat from biological weapons arises from states as well as from terrorist groups. The Green Paper highlights the risk that 'dual-use' knowledge, facilities and technologies in Iraq and the former Soviet Union could be misused to develop Biological Weapons (BW), and also states that there remains a BW threat from "regions in which the UK is most likely to face challenges to our interests, particularly the Gulf, Near East and North Africa."[9] The Government clearly needs to continue to address the threat from these regimes.

8. The threat from states and from terrorists increases as biotechnology develops. J P Perry Robinson, Professorial Fellow for Science and Technology Policy Research at the University of Sussex, described a "great upsurge" in biotechnological developments, which have "maleficent as well as beneficent potential."[10]

9. **We conclude that the level of threat to the United Kingdom from biological weapons must not be underestimated. We commend the Government's commitment to dealing with the issue internationally, and its decision to launch a debate about how to tackle the threat through publication of a Green Paper.**

The United States position

10. The main reason for the breakdown of earlier negotiations at the BTWC Fifth Review Conference was the United States' opposition to the BTWC draft protocol. At the Fifth Review Conference, US Under Secretary of State John Bolton stated that the "time for 'better than nothing' protocols is over ... We will not be protected by a 'Maginot treaty' approach to the BW threat."[11] The US opposed the draft protocol for three reasons: "first, it was based on a traditional arms control approach that will not work on biological weapons; second, it would have compromised national security and confidential business information; and third, it would have been used by proliferators to undermine other effective international export control regimes."[12]

11. Though President Bush has advocated the establishment of an "effective United Nations procedure for investigating suspicious outbreaks or allegations of biological weapons use,"[13] John Bolton argues that "Unlike chemical or nuclear weapons, the components of biological warfare are found in nature, in the soil, in the air and even inside human beings ... Components of biological weapons are, by nature, dual use... Detecting [treaty] violations is nearly impossible; proving a violation is impossible." Bolton's conclusion is that "Traditional arms control measures are not effective against biology. Using them, we could prove neither non-compliance nor compliance. Traditional arms

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[8] Cm 5484, para 15.
[9] *Ibid.*
[10] Ev 38, para 1.
[11] Statement of the Hon. John R. Bolton, US Under Secretary of State for Arms Control and International Security to the Fifth Review Conference of the Biological Weapons Convention Geneva, Switzerland, November 19, 2001. Available at: http://usinfo.state.gov/topical/pol/arms/stories/01111902.htm.
[12] John Bolton, Remarks at Tokyo America Center, 27 August 2002.
[13] Statement by the President: Strengthening the international regime against biological weapons, 1 November 2001. Available at hpp://usinfo.state.gov/topical/pol/terror/01110110.htm.

control measures, in fact, applied to biological activities yield no benefit and actually do great harm."[14]

12. The Green Paper acknowledges that the "dual use nature of virtually all the know-how, materials and equipment used in biology means that identifying and agreeing workable and acceptable verification and compliance measures for biological arms control is fraught with formidable intellectual, scientific and political problems."[15] We have seen no evidence which disputes this claim; indeed, the experience of the United National Special Commission (UNSCOM) in Iraq, which was ready to declare the country clean of biological weapons until it received intelligence from a defector, is the most obvious example of the difficulty inherent in identifying BW programmes.[16]

13. The Iraq example illustrates Mr Dowse's point that "It is certainly correct ... that treaties, even underpinned by compliance measures ... are not the whole answer. We would not be so naive as to put our faith solely in those instruments as a guarantee. But if we take those measures combined with the other instruments at our disposal"—such as export controls, intelligence, and action with other countries or nationally to intercept shipments of concern—"the Government feels (and successive governments have felt since the work to establish compliance measures for the Biological Weapons Convention began in 1994) that it would add something."[17] The Biological and Toxin Weapons Convention is not "the sole answer to the problem", but "another tool in the toolbox. We have always felt the need to look at these tools across the board. We need where we can to strengthen them. It would be foolish simply to discard one of these tools as useless."[18] The European Union has also expressed strong support for a multilateral approach to preventing biological weapons proliferation.[19]

14. The Government's conclusions are supported by the findings of a group of experts convened by the Henry L Stimson Center to examine the United States government's alternative proposals to the draft BW Protocol. The experts concluded that, despite the problems associated with inspections regimes, the "let-each-government-do-as-it-pleases approach," which was proposed by the US as an alternative to the BW Protocol, would result in the "failure to articulate an international standard that governments would be expected to meet." The consequence would be that "Many governments will enact measures that fall far short of worthwhile standards... [This] would foster an uneven patchwork of domestic laws and practices that might have little near-term value and could prove difficult to harmonise in future."[20]

15. The United States has agreed to consider a number of international and institutional measures to combat the BW threat before 2006, according to the unanimous decision of

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[14] John Bolton, Remarks at Tokyo America Center, 27 August 2002.
[15] Cm 5484, para 24.
[16] Q 1.
[17] Q 1.
[18] Q 3.
[19] "We highlight the importance of the multilateral strengthening of international legally binding and political instruments to prevent the proliferation of weapons of mass destruction and their means of delivery. We are equally committed to the reinforcement of disarmament instruments in this field. We will continue to work together for the complete eradication of chemical and biological weapons. We underline the importance of strengthening the compliance with and the promotion of the universality of the Chemical Weapons Convention and the Biological and Toxin Weapons Convention as well as other international norms against the use of chemical, biological and toxin weapons. We underline that it is our conviction the latter Convention is best enhanced by the adoption of a legally binding instrument to oversee the prohibition of the development, production and stockpiling of Biological and Toxic Weapons and their destruction. We continue to support the objective of attaining a regime that would enhance trust in compliance with the Biological Weapons Convention in accordance with the mandate of the ad hoc group set up under the said convention." Statement on ''Common Values and Positions'' made at the EU & Latin America and the Caribbean Summit on 17th May 2002.
[20] *Compliance through science: US pharmaceutical industry experts on a strengthened bioweapons nonproliferation regime*, Henry L Simson Center, Washington DC, August 2002.

States Parties at the Resumed Fifth Review Conference.[21] Throughout much of 2002, however, parts of the Administration have demonstrated considerable scepticism about multilateral agreements, arguing that the United States would prefer to work with "likeminded groups."[22] **We conclude that the threat from biological weapons is a global problem, which—contrary to the view of parts of the US administration—cannot be addressed through national measures alone. We commend the Government's commitment to employ 'all the tools in the toolbox', despite their imperfections, to counter the threat of biological and toxin weapons.**

National criminal legislation

16. Though we are convinced that the Government is right to persist in efforts to reach effective international agreements to control BW, measures at the national level are also necessary. States Parties to the BTWC agreed at the Resumed Fifth Review Conference to consider, next year, the adoption of national legislation to translate the prohibitions in the Convention into domestic law.[23] This is an important first step. There is, however, a danger that States Parties which pass weak laws under this proposal, or fail to implement them, might remain safe havens for terrorists.

17. Graham Pearson of the University of Bradford argues that "It will be important the States Parties ... provide information on the texts of specific legislation enacted or other measures taken to ensure domestic compliance." Dr Pearson notes that the Organisation for the Prohibition of Chemical Weapons has "carried out ... collation and analysis of the legislation enacted by States Parties to implement the Chemical Weapons Convention.[24] We note that the Counter-Terrorism Committee (CTC) of the United Nations Security Council may also have some relevance here: the CTC has helped to co-ordinate international assistance to weak UN Member States, in their development and implementation of counter-terrorist legislation. **We recommend that the Government consider the merits of establishing a co-ordinating mechanism, to assist weaker BTWC States Parties in the development and implementation of effective criminal legislation to translate the Convention's prohibitions into their own domestic laws.**

The United Nations Secretary-General process for investigating alleged CBW use

18. In the early and mid-1980s, the Secretary-General of the United Nations was authorised by UN Member States to investigate suspicious disease outbreaks and allegations of CBW use. As we note above, in November 2001 President Bush stated his intention to enhance the effectiveness of the existing United Nations procedure.[25]

19. We heard from Mr Dowse that "One of the weaknesses of the current Secretary-General's mechanism is that he has no ready-made pool of experts to call on to make these investigations if an allegation of use is brought to him, so it takes time to gather the necessary expertise to send the mission." Mr Dowse explained that "One could establish

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[21] Steve Rademaker, Assistant Secretary of State for Arms Control, stated at the Resumed Fifth Review Conference that "We believe the decision today at this Review Conference represents a realistic judgement about what can successfully be achieved in this forum over the next several years." United States Statement at the Fifth Review Conference of the Biological Weapons Convention, Geneva, Switzerland, 14 November 2002. Available at: http://www.state.gov/t/ac/rls/rm/15151.htm.

[22] John Bolton, Remarks at Tokyo America Center, 27 August 2002.

[23] Ev 35.

[24] Graham Pearson recommends a "small secretariat" to collate information about States' Parties' measures to ensure domestic compliance with the BTWC. See Graham S Pearson, *Review Conference Paper no. 7, Return to Geneva: A comprehensive list of measures*, Department of Peace Studies, University of Bradford, August 2002.

[25] Statement by the President: Strengthening the international regime against biological weapons, 1 November 2001. Available at hpp://usinfo.state.gov/topical/pol/terror/01110110.htm.

a pool, a list of names could be held by the Secretary-General of people who could be called on at very short notice."[26]

20. We note the comments of Jayanatha Dhanapala, UN Under Secretary-General for Disarmament Affairs, that 'The lack of a mechanism to monitor the implementation of the BWC provisions other than the possibility to review the convention at five year intervals, is a lacuna that today more than ever must be addressed.'[27] We further note that the Verification Research, Training and Information Centre (VERTIC) proposes the establishment of a 'BWC Secretariat', which could 'be mandated to receive, translate and archive CBM declarations; maintain the CBM database and website; publish an annual summary of CBM declarations; maintain and constantly update lists of possible BW inspectors for use by the UN Secretary-General; undertake research into inspection and fact-finding protocols ... and act as a clearinghouse for open source information from governments.' VERTIC suggests that the United Kingdom 'could offer to host and provide facilities in London for such a Secretariat.'[28]

21. At the Resumed Fifth BTWC Review Conference, States Parties agreed to "promote ... effective action on ... enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease," and "strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals and plants."[29] These measures had been identified as priorities by the Government in advance of the Review Conference.[30] They will be the focus of the States Parties' work programme for 2004.

22. **We commend the Government's decision to focus on establishing an effective process for investigation into suspected non-compliance with the Biological and Toxin Weapons Convention at the Resumed Fifth Review Conference.**

23. **We recommend that the Government consider measures to strengthen the capacity of the United Nations system—including the World Health Organisation—for investigating suspicious outbreaks or allegations of biological weapons use, in advance of negotiations on this matter between States Parties in 2004.**

24. **We recommend that the Government consider carefully the merits of proposing the establishment of a secretariat, with a mandate similar to that of the Organisation for the Prohibition of Chemical Weapons,[31] to enhance international monitoring of States Parties, compliance with the BTWC and to assist States Parties in ensuring compliance.**

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[26] Q 73.

[27] J Dhanapala, opening statement for the BioWeapons Project Launch, Geneva, 11 November 2002, available at: hppt://disarmament.un.org/speech/11Nov2002.htm.

[28] Ev 42, para 10.

[29] Ev 36, Draft Decision of the Fifth Review Conference, para i, iii and iv.

[30] The Green Paper (Cm 5484) states (para. 54) that the Government would seek the "establishment of an effective and legally binding process for investigation into suspected non-compliance with the Convention [and] greater efforts to tackle the threat posed by natural infectious diseases" at the Resumed Fifth Review Conference.

[31] The Secretariat staff of the Organisation for the Prohibition of Chemical Weapons "propose policies for the implementation of the Convention to the Member States of the OPCW and develop and deliver programmes with and for them. These programmes have four broad aims: to ensure a credible, transparent regime to verify the destruction of chemical weapons and prevent their re-emergence in any Member State, while also protecting legitimate national security and proprietary interests; to provide protection and assistance against chemical weapons; to encourage international cooperation in the peaceful uses of chemistry; and to bring about universal membership of the OPCW by facilitating international cooperation and national capacity building." See Organisation for the Prohibition of Chemical Weapons website: http://www.opcw.org/html/glance/index.html.

Control over dangerous pathogens

25. Investigations since 11 September 2001 have brought to light the extent to which terrorists, unnoticed by the relevant authorities, were pursuing training and preparations for their attacks in both Europe and in the United States. Biotechnological research is undertaken commercially, within the National Health Service, and in a number of universities and research establishments in Britain, and we asked the FCO to explain how the Government is currently regulating such research.

26. Mr Dowse described to us "a scheme that is run in conjunction with institutions of higher education ... known as the Voluntary Vetting Scheme, under which we have briefed these institutions on countries where we have certain concerns about proliferation and we also brief them on courses of study that would give us concern, that could be of benefit to a proliferator."[32] Mr Lamb described the academic institutions' desire—at least "at an earlier stage"—to maintain academic freedom, pointing out that "of course the whole basis on which research goes forward is freedom of information."[33] We were told that there are academic institutions which the Government considers to be of the highest concern, all of which participate in the Voluntary Vetting Scheme. However, only 70 per cent of academic institutions in the Government's "medium concern" category, and 85 per cent of those in the "low concern" category, currently participate.[34]

27. Mr Dowse also pointed out that "We do have on the statute book legislation which makes it a criminal offence to assist the development of a weapon of mass destruction, and indeed the transmission of intangible technology where WMD is concerned is also covered by our legislation. Some of this was introduced in the Anti-Terrorist Act last year, some of it was previously on the statute book. Others are covered by the new Export Control Act, so there are offences that can be targeted."[35] By Mr Lamb's own admission, however, Government control over such research is a "major problem",[36] and currently there is no central co-ordinating body for the control of dangerous pathogens in the United Kingdom.

28. Recent research carried out on behalf of the BBC Radio 4 programme, File on Four, also seems to suggest that the current system for controlling potentially dangerous research in this field in the United Kingdom is inadequate.[37] We also note that although a member of this Committee tabled in early November a series of Written Parliamentary Questions to the FCO on this topic, asking in detail which institutions had been invited to participate in the Voluntary Vetting Scheme and the extent of the 'take up', as of 3 December no substantive replies have appeared in the Official Report.

29. We do understand that there may be security implications if these questions were to be answered openly. We indicated to the Foreign Secretary that we would be pleased to receive some information on a confidential basis. Whilst we have received supplementary evidence,[38] this does not list those institutions that the Government deems should be included in the Voluntary Vetting Scheme and have been invited to participate in it or, more importantly, those institutions who have declined to participate. We would also like to receive information as to the frequency of submissions made under the scheme and be reassured of some consistency in the application and rigour of the vetting process.

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[32] Q 26.
[33] Q 31.
[34] Ev 24.
[35] Q 33.
[36] Q 32.
[37] "BBC Press Office", *Iraqi scientists infiltrated British research centres, reveals File on 4*, 17 November 2002, available at: www.bbc.co.uk/print/pressoffice/pressreleases/stories.../fileon4_iraqi_scientists.shtm.
[38] Ev 24, para 3.

30. We consider this to be wholly unsatisfactory. Quite apart from the security implications, it would appear very unfair, in such a competitive and income generating environment, to those institutions who do collaborate fully as against those who do not.

31. We are concerned that existing measures to regulate the use of biotechnology research in this country may be insufficient to prevent dangerous materials falling into the hands of terrorist groups. We are also concerned that the voluntary vetting procedure does not apply to the National Health Service, wholly commercial research laboratories or other institutions, but is confined to the higher education sector. Our anxiety is that a fully qualified research scientist, who unknown to the authorities was a supporter of a terrorist group, could be admitted to a postgraduate or other research institution within the United Kingdom to pursue an approved programme of research. Such a scientist could thus gain unhindered access to the dangerous materials or pathogens. The United Kingdom should be in a position to set an example to other States Parties in this respect. **We recommend that, in the light of current threats to the security of the United Kingdom, the Government take steps to strengthen its control over biotechnological research in British universities and research institutions.**

32. **We further recommend that the Government consider the establishment of a central authority responsible for control of dangerous pathogens in the United Kingdom.**

A new international convention on the physical protection of dangerous pathogens

33. With respect to the national and international measures for the physical protection of sensitive materials which might be used for the development of biological weapons, Mr Dowse informed us that "There are regulations in place today that address the issue of safe storage of dangerous pathogens ... These regulations have been drawn up essentially with health and safety in mind rather than the terrorist issue in mind. It does seem a gap in the international network of agreements that there are no international standards in this area."[39]

34. **We fully endorse the proposal outlined in the Green Paper for the development of a new convention on the physical protection of dangerous pathogens.**[40]

35. **We welcome the Government's decision to make the implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification one of its priorities at the BTWC Fifth Review Conference.**[41]

36. **We note that the BTWC Review Conference agreed to promote common understanding and effective action on "national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins,"**[42] **and we recommend that the Government do its utmost to assist States Parties to the BTWC in drawing up and implementing such national mechanisms.**

37. We further note that States Parties present at the BTWC Review Conference agreed to promote common understanding on "the content, promulgation and adoption of codes of conduct for scientists."[43] We are, however, concerned that the States Parties will not consider such action until 2005. **We recommend that the Government take steps to**

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[39] Q 35.
[40] Cm 5484, para 47(f).
[41] Cm 5484, para 54.
[42] Ev 36, Draft Decision of the Fifth Review Conference, para 1, ii.
[43] Ev 36, Draft Decision of the Fifth Review Conference, para 1, v.

promulgate an international code of conduct for scientists working with dangerous pathogens, even before the States Parties to the BTWC consider this matter in 2005.

Transparency between States Parties about dual-use capabilities

38. Of the Government's five priority areas to strengthen the BTWC, actions relating to four were agreed at the Resumed Fifth Review Conference. No specific action was, however, agreed to promote "greater transparency between States Parties about their legitimate activities whose dual-use capabilities might be in danger of being misconstrued or misused."[44]

39. **We congratulate the Government on achieving many of its objectives at the Resumed Fifth Review Conference.**

40. **We recommend that, in its response to this Report, the Government outline how it hopes to proceed towards achieving greater transparency between States Parties about legitimate dual-use capabilities which might be in danger of being misconstrued or misused.**

Conclusion

41. We acknowledge the work of non-governmental organisations in bringing greater public awareness of the issue of biological weapons proliferation and in adding to pressure on governments to eschew the development and use of biological weapons. We note, in particular, the launch of the 'Biotechnology, weapons and humanity' project by the International Committee of the Red Cross, and the BioWeapons Prevention Project.[45]

42. We welcome the Government's decision to publish the Green Paper on *Strengthening the Biological and Toxin Weapons Convention*, and its commitment to promoting international action in this crucial area. We note that all of those who responded to the Green Paper "believe that efforts at an international level should continue", and that, among respondents, there is "widespread support and full endorsement of the multilateral and legally based approach outlined in the paper."[46] We, too, believe that this multilateral approach—outlined in the Green Paper, and evident in the Government's stance at the Resumed Fifth Review Conference—is likely to be the most effective way to tackle the grave and growing threat from biological and toxin weapons.

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[44] Cm 5484, para 54.

[45] Jayantha Dhanapala, UN Under Secretary-General for Disarmament Affairs, stated at its launch that the BioWeapons Prevention Project "could make a significant contribution" towards achieving the objectives of the BTWC. See http://disarmament.un.org/speech/11Nov2002.htm.

[46] Ev 17, para 1.

PROCEEDINGS OF THE COMMITTEE RELATING TO THE REPORT

TUESDAY 3 DECEMBER

Members present:

Mr Donald Anderson, in the Chair

Mr Fabian Hamilton
Mr Eric Ilsley
Andrew Mackinlay
Mr John Maples
Mr Bill Olner
Mr Greg Pope
Sir John Stanley

Draft Report (*The Biological Weapons Green Paper*), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 12 read and agreed to.

Paragraph 13 read, amended and agreed to.

Paragraphs 14 to 19 read and agreed to.

A paragraph—(*Andrew Mackinlay*)—brought up, read the first and second time and inserted (now paragraph 20).

Paragraphs 20 to 22 (now paragraphs 21 to 23) read and agreed to.

Another paragraph—(*Andrew Mackinlay*)—brought up, read the first and second time, amended and inserted (now paragraph 24).

Paragraph 23 (now paragraph 25) read, amended and agreed to.

Paragraphs 24 and 25 (now paragraphs 26 and 27) read and agreed to.

More paragraphs—(*Andrew Mackinlay*)—brought up, read the first and second time, amended and inserted (now paragraphs 28 to 30).

Paragraph 26 (now paragraph 31) read, amended and agreed to.

Paragraphs 27 to 35 (now paragraphs 32 to 40) read and agreed to.

Another paragraph—(*Andrew Mackinlay*)—brought up, read the first and second time and inserted (now paragraph 41).

Paragraph 36 (now paragraph 42) read and agreed to.

Resolved, That the Report, as amended, be the First Report of the Committee to the House.

Ordered, That the Chairman do make the Report to the House.

Ordered, That the provisions of Standing Order No. 134 (Select committees (reports)) be applied to the Report.

Several papers were ordered to be appended to the Minutes of Evidence.

Ordered, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House.—(*The Chairman.*)

[Adjourned until Tuesday 10 December at Twenty to Four o'clock.

LIST OF WITNESSES

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Tuesday 22 October 2002

LIST OF MEMORANDA INCLUDED IN THE MINUTES OF EVIDENCE

LIST OF APPENDICES TO THE MINUTES OF EVIDENCE

MINUTES OF EVIDENCE

TAKEN BEFORE THE FOREIGN AFFAIRS COMMITTEE

TUESDAY 22 OCTOBER 2002

Members present:

Donald Anderson, in the Chair

Mr David Chidgey	Andrew Mackinlay
Sir Patrick Cormack	Mr John Maples
Mr Fabian Hamilton	Sir John Stanley

Examination of Witnesses

MR TIM DOWSE, Head, and MR PATRICK LAMB, Deputy Head, Non-Proliferation Department, Foreign and Commonwealth Office, examined.

Chairman

1. May I welcome to our Foreign Affairs Committee Mr Tim Dowse, Head of the Non-Proliferation Department at the FCO, and Mr Patrick Lamb, who is the Deputy Head of the same Department. Gentlemen, let me begin with a general point on the practical problems of enforcement and verification in this field of biological and toxin weapons, that it is a worthy aim but it is never possible to verify compliance satisfactorily. This is an argument we have heard in the US. The Committee has just returned after a week at the United Nations and Washington. We were reminded there, for example, that in 1994–95 the weapons inspectors UNSCOM were about to sign off Iraq as having no biological weapons when the son-in-law of Saddam Hussein defected and pointed out where the facilities were and the regime was then forced to come clean. We are now told that concealment techniques are even more sophisticated with mobile laboratories and speedy transformation of dual use facilities, and of course the cookery books cannot be destroyed, so that what is capable of being made can be stopped and be made again in the future. We were reminded again that the United States cannot find evidence to prosecute the individual who they believe is responsible for the anthrax outbreak which killed nine US citizens. How would you answer this concern, Mr Dowse, that it is a vain quest to secure complete compliance and that those determined to produce biological weapons will always find ways and means of doing so?

(*Mr Dowse*) It is a good question and it is certainly true that, for those of us dealing with non-proliferation across the whole spectrum of weapons of mass destruction, the problems posed by biological weapons proliferation are probably the most difficult of all in this area, really because, as no doubt you will have heard from your discussions last week in the US, the equipment, the procurement, the materials, the expertise, are all dual use. It is a point that we have made in the Green Paper that what we are dealing with here is scientific and technological development that can be used for very great good but equally can be turned to ill. Does that mean that we should not pursue verification measures, international multilateral action, to try and raise the barriers? Our conclusion has been not. It is certainly correct and we would not argue that treaties, even underpinned by compliance measures, whether one calls it inspections or visits or declarations, are not the whole answer. We would not be so naive as to put our faith solely in those instruments as a guarantee. But if we take those measures combined with the other instruments at our disposal, things like export controls, things like—and a lot of this work is heavily based on intelligence which is a crucial element in all this—action with other countries or nationally to intercept shipments of concern, to warn other like-minded countries if we receive information that a proliferator is seeking to acquire materials; when one combines the treaty element and the verification, the compliance mechanisms, with these other more direct instruments, the Government feels (and successive governments have felt since the work to establish compliance measures for the Biological Weapons Convention began in 1994) that it would add something.

2. It might add something but you accept that it is a vain quest, that it would have a very limited effect?

(*Mr Dowse*) It is not the sole answer. I think I would question whether one would say it has very limited effect. You mentioned the UNSCOM example. That is an example of what I am saying in a way. The UNSCOM inspectors, correctly, did not uncover the Iraqi biological weapons programme but when they received intelligence they were able very rapidly to unravel large parts of that programme, not all of it, and indeed the concern that we have got is that Iraq continues to pursue biological weapons, but they did make very significant progress in the mid 1990s once they had got the intelligence information. We nationally and with other countries devote a lot of resources in our intelligence agencies to addressing this problem of proliferation, not just biological but other weapons of mass destruction. We focus a lot of attention on trying to gather information in this area. What we have found in relation to some of the other conventions, and the Chemical Weapons Convention is a good example, is that when we are able to combine this national source of information with the sorts of exchanges, questions, dialogue that we can have with other parties to those conventions,

[**Chairman** *Cont*]
we are able to look at their declarations, we can question them on their declarations, we can put all these sources of information together and we can increase our knowledge, we can increase the picture of what is going on.

3. But the analogy with chemical weapons is surely a difficult one because it is so much easier to detect the production of chemical weapons.

(*Mr Dowse*) It is easier. I still would not say it was easy. Again, there is much that is dual use. It is true that when one is talking about quantities there is a distinction. Biological weapons, I agree, are the most difficult. I say again that we have never suggested that the Biological Weapons Convention, even underpinned by compliance measures of the sort that have been discussed in recent years, would be the sole answer to the problem. It is another tool in the toolbox. We have felt always that we need to look at these tools across the board. We need where we can to strengthen them. It would be foolish simply to discard any one of these tools as useless.

4. I have a few questions which I hope will clear the ground and can be answered very speedily on the steps the FCO is taking actively to promote universal membership of the Convention. There are currently 145 signatories. Of the non-signatory countries to the Convention which in your judgment are most threatening to UK interests?

(*Mr Dowse*) It is 146 signatories. There has recently been another one. In addition to those 146 signatories which have also ratified there are a further 17 that have signed but not ratified. Of those that have not joined the Convention, in our own *démarches* which we tend to conduct with our European partners there have been a number of EU *démarches* globally. We do not distinguish between non-signatories. Clearly we would like to see much greater take-up in the Middle East. This is an area where in general we have concerns that there are countries pursuing weapons of mass destruction. One tends to find that where there is one programme it can trigger another. It would be, we feel, a confidence building measure if there were universal signing.

5. Which countries in particular concern you?

(*Mr Dowse*) We would like to see Egypt ratify. We would like to see Israel ratify. They have signed but not ratified.

(*Mr Lamb*) No, they have not signed. They have signed the Chemical Weapons Convention but have failed to accede to it.

6. What steps are we taking to persuade countries like Egypt and Israel to sign?

(*Mr Dowse*) As I say, there have been EU *démarches*,. There was one about six months ago.

(*Mr Lamb*) There was one six months ago. There was also a UK *démarche* that took place prior to the Commonwealth Heads of Government meeting that took in largely Commonwealth countries that had failed to accede either to the Chemical or the Biological Weapons Conventions, as a follow-up.

Andrew Mackinlay

7. It might be useful if we had a definitive list and the witnesses can give fair consideration to it rather than talking in vague terms now.

(*Mr Dowse*) We can provide that. Specifically in the case of Israel we have a regular non-proliferation dialogue with the Israelis and we take that opportunity every time to raise the issue[1].

Chairman

8. Did you say that Egypt has signed but not ratified?

(*Mr Dowse*) Egypt has not signed.

Chairman: We have a list of 31 countries which have not signed and these obviously include some which are perhaps not relevant and do not have the capacity, such as Andorra, the Cook Islands and others. Others which are more relevant include Israel, Kazakhstan, and there is the Sudan, but Egypt is not mentioned. Does that mean that Egypt has signed and not ratified?

Andrew Mackinlay

9. That is why I think we should be given a list which is qualitative.

(*Mr Lamb*) Egypt has signed but not ratified.

Chairman

10. Under the Geneva Protocol many States Parties retained the right to retaliate in kind if they are attacked by biological weapons and obviously there is a certain logical inconsistency in not having biological weapons yet having the capacity to retaliate in kind. Which states retain the right to retaliate in kind if they are attacked by biological weapons and why do they refuse to lift reservations to the 1925 Geneva Protocol?

(*Mr Lamb*) I do not have a comprehensive list of those countries. The Depositary of the 1925 Protocol is France and a number of the reservations were laid down immediately after signature of the 1925 Protocol. Our own reservations historically were signed I believe in 1931 but they have since been lifted. I do not have a comprehensive list of those countries which maintain reservations. To a large extent the 1972 Convention supersedes the 1925 Protocol and it is a matter of fact that some countries have failed thus far to lift those reservations that they have. That matter is being pursued actively by France and we obviously strongly support that.

11. What argument can they give, apart from inertia, in not lifting those reservations?

(*Mr Lamb*) They can logically provide no argument. I think it is in fact largely down to inertia.

(*Mr Dowse*) Certainly it would be our view that for any country that has now signed and ratified the 1972 Convention, any reservations that it might have had to the 1925 Protocol are superseded. One of the proposals that we put forward in the Green Paper was that those countries that still maintain reservations to the 1925 Protocol should now lift

[1] *See* Evidence pages Ev 16-17.

[**Chairman** *Cont*]
them, but we would regard that as a tidying up measure rather than something that is necessary for legal purposes.

Sir Patrick Cormack

12. Has Iraq reservations? I see Iraq has signed.
(*Mr Lamb*) The Biological Convention or the Geneva Protocol?

13. According to this list we have here Iraq is not listed so presumably Iraq has signed the BTWC.
(*Mr Lamb*) Correct. Iraq acceded to the BTWC in 1991 immediately following the Gulf War. It was one of the conditions of the cease-fire.

14. Presumably it does not attach much importance to that.
(*Mr Dowse*) The evidence is clear that Iraq may have acceded but it has not adhered to it.

15. So how many other nations fit into that category? All those within the "axis of evil" perhaps?
(*Mr Dowse*) We do of course have concerns that a number of other countries are not observing their obligations under the various international conventions. You will understand that in this area, and again perhaps above all within the area of biological weapons conventions, the reporting that our concerns are based on is frequently intelligence reporting, so it is difficult for me in a session like this to get into detail. There are concerns that we have about other countries. We pursue those concerns actively.

16. I am glad to hear it. Can I move you on to the Green Paper? How many responses have you had?
(*Mr Lamb*) We have had a total of 15 responses from academics, trade associations, professional associations, some three responses I believe from United States academics, so a good spread of responses and a number of comments from other States Parties, entirely positive with respect to the effort that we made with that particular paper.
(*Mr Dowse*) When I say "responses", those are formal written responses but we have had quite a lot of informal responses, particularly in discussions in Geneva between delegations at the Conference on Disarmament where these issues are now being debated.

17. Have these responses affected the Government's views on how the Convention can be strengthened?
(*Mr Dowse*) The responses have been across the spectrum. I would be happy, if the Committee would like it, to provide you with a written synopsis of the responses we have had[2].

Chairman

18. Please do that.
(*Mr Dowse*) They vary. Our ideas received general support. Questions have been raised by some as to whether they go far enough. Questions have been raised by others as to whether some of our ideas, for example, for investigation mechanisms which strengthen the Secretary-General's UN investigation mechanism, might go too far in terms of imposing burdens on industry, for example. This is one of the issues that has really been thrashed out over some time in the work on the now abandoned protocol, that what we have been looking at throughout has been a question of balancing benefit against burden. This rather goes back, Mr Anderson, to your first question: is the benefit that can be gained from additional mechanisms to investigate compliance with the Convention sufficient to justify the admitted burden that would be created, an administrative burden, a financial burden, a burden on industry which would have to open its sites, its plants, to international visits, a burden perhaps on bio-defence programmes? This has been the issue that all countries have had to weigh up as we have pursued this approach. The UK, in balancing this benefit and burden question, came to the conclusion that the benefits were sufficient to justify the burden. We felt that the burden was an acceptable one. Other countries, like the US, for example, came to a different conclusion or they have different factors to weigh. The United States have a much larger pharmaceutical industry. They have a much larger defence programme. The political circumstances were somewhat different.

Sir Patrick Cormack

19. How far has the declaration of the war against terrorism affected the United Kingdom's general approach here, following on from what you have been saying?
(*Mr Dowse*) Before September 11 our approach was very energetically to promote a strengthening of the Biological Weapons Convention, and particularly to look for ways in which we could encourage compliance, deal with this constant problem of non-compliance. In one sense our policy has not changed since September 11. What we have seen since September 11 has been that the question of weapons of mass destruction and the added consciousness that these things could fall into the hands of terrorists have raised this issue even further up the agenda than before.

20. Have we devoted more resources to it?
(*Mr Dowse*) If you are looking across the board, not specifically at biological weapons, my Department is devoting additional time to it. We are acquiring additional staff to deal in particular with it.

21. Are acquiring or have acquired?
(*Mr Dowse*) We are acquiring additional staff.

22. So you have not yet acquired them?
(*Mr Dowse*) We are in the process of acquiring them at the moment.

23. How many additional staff?
(*Mr Dowse*) At the moment we are bidding for two additional staff.
(*Mr Lamb*) Currently four have joined and two are on the way.

24. How many are there already?
(*Mr Lamb*) We have some 35 members of the Department already.

[2] *See* Evidence pages Ev 17-24.

[**Sir Patrick Cormack** *Cont*]

(*Mr Dowse*) Not all dealing with weapons of mass destruction. We also deal with conventional arms exports, but about half deal with WMD issues. That is including the export control mechanisms. Just to complete the answer to your question, things like the anthrax attacks in the United States were one of the factors that certainly led us, and I am sure he would not mind my saying led the Foreign Secretary personally, to very strongly take the view, when the first session of the Review Conference last November/December came to an end without a conclusion, that the UK should try and take the initiative to keep this issue in the public mind, to keep it on the international agenda, and indeed that was why we published the Green Paper. We were trying to ensure that, in the inevitable sense of gloom and despondency that followed the immediate break-up of the Review Conference at the beginning of last December, there was not a conclusion that this issue should be simply put in the "too difficult" box.

Andrew Mackinlay

25. I see that the Ministry of Defence in 1999 said in our defence paper, "So far, very few terror groups have shown an interest in biological or chemical materials . . . The current threat to UK interests is low.", etc. Presumably that is now inoperative, is it, in the view of Her Majesty's Government?

(*Mr Dowse*) The present assessment, and this is of course based partly on evidence that was discovered in Afghanistan which has also been fairly well exposed in the newspapers, is that there are certainly terrorist groups that are interested in acquiring chemical and biological weapons. There are terrorist groups, and al-Qaeda was one, that have taken active steps to acquire such weapons. We have no evidence as of this moment that any have succeeded.

26. That is a relief. I read the paper twice before I came here and it seems to me that one of the things we are saying is that we have put into our own statute book that which we would like internationally, so let us give ourselves a good mark for that, but I have to say to you that I am petrified—and you are going to reassure me now—because I assumed when you mentioned anthrax in the United States (and it is a reasonable assumption) that this was not brought into the United States; it was made or cultured there. A few miles from here you and I could go up to Bloomsbury, to some very fine postgraduate institutes. There are thousands of scientists in this country, a very transient international community which is a money-earner not just for our commercial side but also for our academic institutions. It is a fact, is it not, that neither you nor I, nor Her Majesty's Government, have the foggiest idea what the vast majority of these scientists are doing and who they are? There is no spot check, is there?

(*Mr Dowse*) We do have a scheme that is run in conjunction with institutions of higher education, and it is known as the Voluntary Vetting Scheme, under which we have briefed these institutions on countries where we have certain concerns about proliferation and we also brief them on courses of study that would give us concern, that could be of benefit to a proliferator. This is again not just biological weapons; this is also chemical, nuclear and ballistic missiles. We encourage the participating institutions to let us know if they receive an application from a student from a country of concern to study a course of concern. This is essentially postgraduate work. We are not interested in trying to limit people's access to what is available in any textbook. We are then able to advise if the individual concerned is someone who would give us difficulty and where we feel that they should not be allowed to study this course. We have quite a good take-up of this scheme. It is voluntary. It is not something where we have wished to legislate, and there are issues, obviously, of academic freedom. We have had an increasing take-up of this scheme since September 11. We think it is effective in dealing with this.

27. How many postgraduate students are there in approximate round terms in the United Kingdom in scientific institutions?

(*Mr Dowse*) I would have to refer back to you on that.

28. Perhaps you could give us the figures on that.

(*Mr Dowse*) Sure[3].

29. Perhaps you could also give us figures on how many have taken up the voluntary scheme and which institutions have and have not.

(*Mr Dowse*) We can give you figures. This is a voluntary scheme. I do not want to discourage—

30. No, but if it is voluntary, that infers to me that it is patchy. You have probably got some good directors who are diligent and some who are not. That would be fair, would it not?

(*Mr Dowse*) It is not universal. I would say that we feel we get good coverage of the main institutes.

Andrew Mackinlay: I still have to say to you that it is woefully inadequate. It is not your fault; it is the legislators' fault. We have not put it in the statute book. The fact is that you could have a postgraduate person here employed on a contract to carry on some research, and 95 per cent of his or her time here he or she might be doing that. You and I have no idea and there is no way of finding out what he or she is doing the other five per cent of the time or what is in the back of the fridge, have we?

Sir Patrick Cormack: Or whether he is taking flying lessons as well.

Andrew Mackinlay

31. It is a serious point, Sir Patrick, and I am not dismissing what you are saying, but this is the real problem, this academic freedom thing. All of us post-September 11 have had some of our freedoms narrowed. We find it is a price we have to pay, a price worth paying. Academic freedom is very important and I also understand the commercial interests, but unless you are going to have a regime nationally—and it might be that you could try and get people to do it nationally because that seems to be the answer in the United States, and then at least we could agree standards of national inspection—we are not going to get anywhere. You have to get a Justice of the Peace warrant to go in and find out what is going on. Surely the answer has to be, with proper ground rules

[3] *See* Evidence page Ev 24.

[**Andrew Mackinlay** *Cont*]
drawn up with academia, that you need to be able to go into some of these institutes and say, "Who is this man? What is he doing?", and, "What is in there?", to put it in simple terms. Surely that is necessary, is it not?

(*Mr Lamb*) As you recognise, it is a wider problem that goes to the heart of academic freedom. As Mr Dowse said, the reason that this is a voluntary scheme is that we obviously liaise with the universities. The universities at an earlier stage, I have to say, although it is not necessarily the case now, were very intent and keen on maintaining that academic freedom, and of course the whole basis on which research goes forward is freedom of information. Those academic institutions, both in the United Kingdom and elsewhere, are wrestling with the problems of how to control both those who have access to that type of work and indeed the freedom subsequently of their research being published more widely. We ourselves met with a group from the National Academy of Sciences in Washington in July, who came to the United Kingdom to ask a range of institutions here, both in Government and outside Government, about exactly how we were facing up to dealing with that particular problem.

32. What did we tell them?

(*Mr Lamb*) We said, "We recognise that this is a major problem". On that occasion the meeting was in the Foreign Office and we specifically directed them to the Office of Science and Technology and the academic institutions because this is a developing issue.

33. I am not trying to be awkward with you but you say, "We recognise that this is a major problem". At least we have acknowledged that this is a problem, but as of this morning it is not being addressed, is it? There is a war against terrorism we are told and here we are just saying we have a problem.

(*Mr Dowse*) There is more than one string to our bow in this area. We do have on the statute book legislation which makes it a criminal offence to assist the development of a weapon of mass destruction, and indeed the transmission of intangible technology where WMD is concerned is also covered by our legislation. Some of this was introduced in the Anti-Terrorist Act last year, some of it was previously on the statute book. Others are covered by the new Export Control Act, so there are offences that can be targeted.

34. Of course, but they will be after the event. I looked at the legislation this morning before coming in here. In a sense you have to have some prior knowledge. You have to go to a Justice of the Peace to get an inspection. It seems to me that the only prevention, as with so many of these things, like we want to do in Iraq, is where, if there is a possibility of an inspection regime coming in unannounced, that is the only potential serious impediment in this area. I was looking for, in any legislation, a thing which gave the heads of institutions—directors, chief executives, principals, masters, call them what you like—a specific duty (and of course they always have a duty of care; any manager has) to satisfy himself or herself that they knew who the people in their institution were and what they were doing. There is a complete void there in our legislation. What do you say to that?

(*Mr Dowse*) It is a point we are aware of. To date the way we have tried to tackle this is, as I say, through working together with institutes of higher education and dealing with the sorts of courses that would cause us concern.

Andrew Mackinlay: Tell Mr Straw I will return to this next week when we see him. It is a political thing but it does seem to me that this is something we need to address.

Sir John Stanley

35. I want to continue the line of questioning which Mr Mackinlay has started. The Foreign Office, in a publicly accessible paper which sits in the House of Commons library, has assessed that one hundred kilograms of anthrax placed on a high storey building in an urban area could kill up to three million people. The lethality of anthrax, smallpox, plague and other germ agents is on such a scale that surely, now that you and many others have acknowledged the risk of such agents falling into the hands of terrorists, this requires a complete change of view inside our Government and inside governments generally as to government responsibilities on the control mechanisms and the visibility mechanisms that have to be employed to ensure that the people of this country and other countries are protected against such an appalling event. We already have the precedent in the nuclear area. Governments some decades ago realised that there was no way in which fissile material could run around in countries on the basis that a government would not know what was there and in what quantities they had it, and we moved down the road of the fissile control regime. It has inadequacies but that was clearly the direction in which governments had to go. Do you not agree that, given where we are today, we have got to go down the same route in relation to biological agents and chemical agents, but probably most particularly biological agents? Is it not now time when governments have to accept that they must know and have approval systems for who can culture (if anybody) anthrax and smallpox and plague etc, and records as to where those cultures are, the quantities that they are in and a full system of accountability and approval? Is that not now absolutely essential in national security terms?

(*Mr Dowse*) With regard to issues relating to physical protection and accounting for sensitive materials of this sort, we would agree with you on that. There are regulations in place today that address the issue of safe storage of dangerous pathogens and things like that. These regulations have been drawn up essentially with health and safety in mind rather than the terrorist issue in mind. It does seem a gap in the international network of agreements that there are no international standards in this area. I think chemicals is another area that needs to be looked at. It is one of the proposals of course that we put forward in the Green Paper, that there should be a new convention on the physical protection of dangerous pathogens, and that would very much have that in mind. It is something that we

[**Sir John Stanley** *Cont*]
have put there as a proposal that we want to discuss with the biotechnology industry and of course it affects the Health Service as well.

36. But surely it is more than just physical protection. Surely a system of approval is required. Surely we cannot contemplate a situation whereby anybody in this country or elsewhere can without authorisation culture some of these incredibly dangerous agents which can produce mass lethality?

(*Mr Lamb*) It is not particularly our area but there is already in place a very careful means of scrutiny, largely by the Health and Safety Executive, which would wish to assess any research project that was being proposed that in any way dealt with a dangerous pathogen. It does not answer your problem in so far as whether this is centrally known to government, which probably is not the case at present. However, in one sense, and genuinely to reassure you, these are subject to very careful scrutiny by the academic institutions that are sponsoring them, by the Health and Safety Executive ultimately, and indeed by the commercial companies that are undertaking them. One of the proposals that is being discussed in the context of physical protection, to answer Mr Mackinlay's point somewhat belatedly perhaps, is the actual vetting of those individuals who would have access to these dangerous pathogens, something that has not been the case up until now. Much of this work is in any case done in government laboratories, such as at Porton Down, where it has been done previously, but perhaps we need to consider actual vetting to make sure that these individuals are not likely to misuse the information that they have acquired.

(*Mr Dowse*) What we can say is that there are some regulations in place. We are actively looking at others. It is not primarily a matter for the Foreign Office. It is more a matter for home departments but, to give one example, you will recall the development in the United States of the synthetic polio virus and the concern that that raised, that this work had gone on apparently with very little supervision. That is something which led us to ask the question, could that have happened here, and the answer is no. That sort of work would not happen free of regulation in the UK.

37. Can you confirm to me that as of today you, unavoidably at the moment speaking on behalf of the Government as a whole, have no idea at all as to where there are any cultures of anthrax, smallpox, plague or similar such agents in this country and the quantities?

(*Mr Lamb*) I believe the quantities would be a difficult matter because these are in any case very small. Certainly there are no quantities of smallpox because all the smallpox stocks are now gathered in CDC Atlanta and at Vektor in Russia. That is under a WHO decision and the smallpox stocks we previously had in this country are there. With respect to the other agents you mentioned, if there is any storage of such agents it would most likely be at CBD Porton Down and therefore in that sense would be under government control and known to government.

38. But that is guesswork, is it not? You are nodding. Could you say that verbally? I am saying to you that that is guesswork. Is this an assumption you are making?

(*Mr Lamb*) It is an assumption I am making, yes, indeed.

(*Mr Dowse*) We are speaking as the Foreign Office. We would need to consult our colleagues at the Department of Health before giving you a definitive answer to this point.

Sir Patrick Cormack

39. Is that not the point? You said a few moments ago that it is not specifically a Foreign Office matter; it is for the home departments. I think we would all feel a little more confident and perhaps people would sleep a little more easily in their beds if we thought that there was a central co-ordinating authority under you or somebody else who could actually give definitive answers to the sorts of question which my colleagues have been asking. How far are we from having that degree of co-ordination?

(*Mr Dowse*) We do not have a central authority at the moment although the Department of Health would be the lead department in this area. Were there such a central authority it would not be an authority under the Foreign Office.

Sir Patrick Cormack: Do you think there should be?

Andrew Mackinlay

40. Or against terrorism?

(*Mr Lamb*) I can see a value for such an authority, yes indeed, and I believe a great deal of work has been going on since September 11, sparked off by September 11, specifically in the United Kingdom but elsewhere, certainly in the United States, looking very specifically at the issue of the handling of dangerous pathogens.

Sir Patrick Cormack

41. I do not want at all to be disparaging of your efforts, which I am sure are wholly well motivated and extremely efficiently conducted, and I have great confidence in the Foreign Office, but I do believe that we would all have more confidence if there were this central co-ordination. Could you take that message away from this meeting?

(*Mr Dowse*) We will take that message away. I say again that I think this is an issue that is not primarily for the Foreign Office to answer but we certainly hear your message loud and clear.

(*Mr Lamb*) And as well as the Department of Health we would also be looking at Agriculture because we are talking about potential plant and animal pathogens.

Andrew Mackinlay

42. Joined-up government then?

(*Mr Lamb*) It is much wider than the Department of Health. We have been consulting. All my colleagues, have, I know been consulting with the

[**Andrew Mackinlay** *Cont*]
relevant officials, looking at the handling of pathogens in that particular area as part of the overall study that has gone forward since September 11.

Chairman

43. The head of the biological weapons programme in Iraq was educated in this country. Are you confident that the controls have been so changed since that she or her equivalent would be unlikely to be educated in this country in a related subject?

(*Mr Dowse*) It is precisely because of that case which first led us to introduce the issue of the institution of the Voluntary Vetting Scheme.

Andrew Mackinlay

44. It is voluntary.

(*Mr Dowse*) We are as confident as we can be, absent a compulsory scheme, which I think would raise issues of academic freedom, that that could not happen here again.

Chairman

45. "Voluntary" means it is dependent on the goodwill of the head of the relevant department.

(*Mr Dowse*) I would say again though that we have been pleased with the level of take-up of the scheme among the institutes of higher education and that take-up has increased significantly since September 11.

Sir Patrick Cormack

46. Eighty per cent, 90 per cent, 70 per cent? What is it?

(*Mr Dowse*) I would have to look that up.

Sir Patrick Cormack: But is it nearer 80 per cent or nearer 40 per cent?

Andrew Mackinlay

47. Take the London School of Hygiene and Tropical Medicine by way of example, in fairness to them. Are you saying it is 100 per cent there? What would 80 per cent mean? Does it require the postgraduate himself to say yes?

(*Mr Dowse*) No. It requires the institution when receiving an application from an overseas student to consult the Government as to the advisability of this person coming to study a preferred course of study.

48. They do a percentage of these?

(*Mr Dowse*) No. We encourage them to refer all those in the categories that we have advised on.

Sir Patrick Cormack

49. How many institutions? Is it 80 per cent of institutions or 40 per cent of institutions? Are we dealing with most academic institutions on this voluntary basis or not?

(*Mr Lamb*) We are dealing with all the institutions on a voluntary basis. I would moreover cite the case of that particular individual as being one of the turning points in changing the attitudes of the British universities in particular because clearly, when that university comes to be associated with that individual and knows that she was trained at that university, there is a blow-back on the university and our task has been made easier in terms of approaching universities and getting greater co-operation since that particular event.

50. How many universities?

(*Mr Dowse*) We will give you a note on that[4].

Chairman

51. Mr Mackinlay has raised a very important matter. I anticipate that the Committee will wish to return to it and you will provide further evidence in response to the questions

(*Mr Dowse*) We will.

Mr Maples

52. I just want to ask you in some detail about the United States' position on this but first I have a couple of points on potential terrorist use of these biological weapons. Sir John Stanley asked you about a litre of anthrax on the top of a building but actually, if it was a highly infectious disease, you would not need a litre of the stuff. In an era of terrorist suicide bombers you only need to introduce one infected person into London or Paris or New York or wherever; that is all you would actually need to do. If you have got some highly infectious disease like smallpox, presumably that is a really serious danger, but you say that the pathogen is under really strict control. Do you take into account, in your attempts to police this worldwide defending of the United Kingdom against it, the degree of infectious disease and are you very much more concerned about some rather than others, particularly the example where one might be used by the suicide bomber? Secondly, within that context, is there a practical difference in your mind between the people who have the technology to turn biological weapons into a powdered or dried form as opposed to a liquid form, because my understanding is that it is much more stable and much easier to transport it in that form? I just wonder how you look at those two issues in the context of the possible misuse of biological weapons by a terrorist or state terrorist groups.

(*Mr Lamb*) In terms of the first part of your question with respect to the dangers from specific agents, when we were negotiating the Protocol there was a specific section of that Protocol that was devoted to a list of agents and that required some considerable and very difficult negotiations because countries had different perceptions as to the dangers from different agents. Some of those countries were clearly aware and had the background of earlier research that had been done in defensive BW programmes and thus were aware of the more dangerous agents. One of the other difficulties was

[4] *See* Evidence page Ev 24.

[**Mr Maples** *Cont*]
that countries placed a greater emphasis in some instances on plant and animal agents that could be used in that particular context, and also a further dimension was the geographic spread. For certain countries some of these viruses are endemic in that particular country and they place greater emphasis, understandably, upon those particular agents. That is a broad answer but a list was established of those most dangerous agents and those most likely to be used in any BW proliferation campaign.

53. In that context is the most dangerous the most infectious or the most lethal?

(*Mr Lamb*) I think it is a mistake to automatically assume that we are talking about lethality because one of the effects you might wish to achieve is indeed not lethality but simply to create lethargy, to cause temporary sickness that would oblige an armed force in the field to deal with those casualties, evacuate them, wasting and taking up valuable resources that could be deployed for more effective and direct military use, so to an extent biological weapons should not necessarily be seen as instruments for killing large numbers of people. They also have, and it is sometimes forgotten, a very dangerous potential with respect to crops and livestock.

54. What about the powdered and dried form? Is that an issue?

(*Mr Lamb*) In terms of the Protocol and what we were trying to achieve, it was not a specific issue. I believe you are quite right: it is more stable in powdered form than in liquid form if we are talking about anthrax now. Anthrax occurs naturally, of course. One of the things that you would wish to do in a biological weapons programme would be to mill the spores of anthrax to the point where they were so small that they could be ingested into the lungs, which is what would make it particularly dangerous and indeed lethal.

(*Mr Dowse*) If I can just add to that, one of the other instruments that we have other than treaty regimes and inspections in looking at this and trying to counter this problem of biological weapons is the availability of export controls and the multilateral export controls. There is a multilateral group called the Australia Group that co-ordinates and sets certain standards for export controls related to chemical and biological materials and related equipment. One of the things that that group has been doing since September 11, as some of the other export control regimes have been doing, is looking to see whether its controls are properly adapted to the terrorist threat. In the past they have tended to be designed to counter state acquisition of biological weapons for military purposes and quantities and sizes of equipment, for example, have been such that the control has been drawn up with that in mind. In the case of terrorism one could be looking at much smaller quantities. One could be looking at smaller sizes, for example, of fermenters for producing viruses, and the Australia Group is now very actively looking at how to revise its control list to address that issue. It is something that is very much, I would say, on the international agenda between those like-minded countries that participate in these regimes.

55. Can I come to the United States Government's refusal to sign the control regime's protocol? John Bolton gave three reasons. One was that the biological weapons were not in a traditional arms control methodology, and we have discussed that in one way or another; secondly, that it put at risk national security in biodefence and also commercial biotech companies would be revealing sensitive information, and, thirdly, your point about the Australia Group, that it had undermined multilateral export control conventions. I wonder if you could say what is the British Government's view on each of those three points? Do you think there is substance to them or do you think that they can be dealt with in a way that the Protocol would have been implemented?

(*Mr Dowse*) They certainly cannot be dismissed. Each one of those issues was something that also concerned us and which we tried to address in the course of nearly six years of negotiations. As I said earlier, ultimately every country participating in these negotiations, trying to decide its position, had to make a cost-benefit assessment and the issues that you quote John Bolton as raising were part of that cost-benefit assessment. The Protocol as it stood in August last year (and it was not finalised) we looked at from this point of view of the perceived benefit against the burden and the considered view of the British Government, across government to other departments who were involved in this, was that the balance came down on the side of benefit. It was certainly not everything that we would like to have seen. We would like to have seen a rather more intrusive inspection regime, for example. That had not been possible to achieve in the negotiations. We nevertheless concluded that the benefit outweighed the burden. The United States came to a different conclusion. I think I touched on some of the reasons why that might have been so. Their industry was fairly consistently critical of the Protocol. It is a much larger pharmaceutical industry than ours, or indeed those of our European partners. They have something like 40 per cent of the global pharmaceutical industry. Our industry did not oppose the Protocol in the way that the US industry did. We consulted our industry at intervals throughout these negotiations. At one stage we ran a practice inspection as a way of trying to expose both to ourselves and to industry what the problems might be and this was fairly successful. That was one issue where the balance was different here than in the United States. Similarly, in terms of biodefence programmes, we were comfortable I think with the proposals that were on the table in the Protocol that dealt with managed access to biodefence facilities. We were confident that we could comply with this, that it would be valuable both in providing confidence to us with access to other countries' programmes, and at the same time the burden that it imposed, which was the risk that it might pose to our own limited biodefence programme, was acceptable and the United States again came to a different conclusion. They have a much larger biodefence programme, considerably larger than ours by many factors. On the question of the Australia Group I have to say that our conclusion was that the Protocol helped to strengthen the concept of export control and the need for multilateral export controls in this area. The Protocol as it was drafted in August did not

[**Mr Maples** *Cont*]
seem to us to undermine the export controls of the Australia Group. We felt that it legitimised them in a way, in that these multilateral export control regimes are often criticised by countries that believe they are discriminatory, that feel themselves on the receiving end of the export controls. We felt that the Protocol as drafted in fact helped to strengthen the case for export controls, so that I think is a point where our interpretation did differ from that of the Americans.

Sir John Stanley

56. I want to go back to President Bush's formal statement which he gave on 1 November last year. He said, "My administration is proposing that all parties"—and he lists a total of seven points, all of which I think the British Government would happily endorse, but of those seven points I would like to read two of them. The first is this, "establish an effective United Nations procedure for investigating suspicious outbreaks or allegations of biological weapons used". The next one referred to is, "establish procedures for addressing BWC compliance concerns". That is the stated official policy of the US administration. That being the case, that they want an effective United Nations procedure for investigation, I am still baffled, and indeed even more baffled following our discussions with the relevant people in the State Department last week, as to why, when the President has stated that that is the policy of his administration, there does not appear to be so far—tell me if I am wrong—almost complete non-delivery of the President's policy.

(*Mr Dowse*) It is not for me to answer for the United States Government.

57. Perhaps you can explain the British Government's perspective.

(*Mr Dowse*) We have of course ourselves discussed quite intensively with the US Government how to move forward following the end of the Protocol negotiations and indeed the suspension of the last year's Review Conference. We would say that there is absolutely no doubt that the United States Government shares our view that it is important to strengthen the BWC. What we have been working on with both the US and with other like-minded governments, and some of our European partners as well, is a package of measures that we can take when the Review Conference resumes in November and that we would hope all the members of that Review Conference can unite around which will then form the basis of a work programme to take forward multilaterally, internationally; a package of measures that will serve to strengthen the Convention. The contents of that package are still under negotiation. You will not be surprised to hear that the elements are not dissimilar to many of the ideas that are in our Green Paper, which of course also overlap with President Bush's suggestions, and indeed an effective UN procedure for investigating suspicious outbreaks of disease or allegations of use of biological weapons is clearly from our point of view an important part of our package.

58. Yes, but the phrase is a heading and the British Government, ever since President Bush said that on 1 November last year, must successively have asked American officials how does the US administration intend in practical terms to deliver the President's policy. May I ask you what answers have you got? How do the Americans envisage there is going to be set up an effective United Nations procedure for investigation? How?

(*Mr Dowse*) Through international discussions. As I say, this is something that will be on the agenda when the Review Conference resumes. To establish a UN procedure you need international agreement to take that sort of thing forward. The UN is the servant of the Member States so there needs to be an agreed proposal that is put forward. You are right that the broad heading to establish an effective UN procedure is simply a broad heading. We in our Green Paper tried to give a little more substance to that by putting forward some ideas as to what form this procedure might take. These are the subject of the discussions that we have been having with US officials, and with other interested like-minded countries since then. We are at a fairly delicate stage of negotiations now, I would say. It is not so long before the Review Conference reconvenes next month. What we are aiming for is to achieve a package that is a credible package involving a variety of measures which would then be taken forward internationally in work approved by the Review Conference but would, we would hope, lead to international agreement.

59. But in everything you have said I have not got a clear answer to the question which I am putting to you. The American President has indicated that he wants an effective United Nations procedure for investigation. Are you saying to me or not that since that was stated by the President almost a year ago now to the day there has been no proposal from the US administration as to the form that that effective procedure should take? Are you saying that or is it just being left to the British Government?

(*Mr Dowse*) They have not fleshed out that proposal.

60. At all?

(*Mr Dowse*) Not in discussions to us.

Chairman

61. Indeed beyond that. We heard in Washington that the current position of the US administration is to hold a very brief meeting in November, next month, or even no meeting at all and talk again when the next review is scheduled four years from now.

(*Mr Dowse*) That is not my understanding of the position of the US Government.

62. This is what we largely heard from the experts.

(*Mr Dowse*) In the most recent discussions we have had with the US, which have been at the end of September and earlier this month, that position that you describe is not consistent with what we have heard from the US.

Sir John Stanley

63. Can you tell me whether in your judgment the US administration are ruling in or ruling out an on-the-ground inspection regime as part of their policy for an effective United Nations procedure for investigation?

(*Mr Dowse*) My understanding, and this is based on the discussions we have had with the US over this year, is that as of today they do not believe an inspections regime would constitute an effective procedure. That is essentially one of the judgments they came to at the time of the Protocol. They are not in favour of an inspections regime.

64. Given the ease of concealment of BW in particular, does the British Government conceive that there is any way at all in which there can be an effective United Nations investigation of abuses without some form of physical inspection on the ground?

(*Mr Dowse*) This in a way comes back to where we started this discussion. We have never believed that inspections, compliance visits, however you describe them, are a panacea. They are not the answer. A determined proliferator could continue to conceal, particularly in the area of biological weapons. However, we have always taken the view that the sort of compliance measures that were discussed at the time of the Protocol nevertheless do have a value when added to other instruments in making life more difficult for a proliferator. A lot of the time what we are doing in this whole area of counter proliferation is trying to tilt the playing field against the proliferator. That is not to say that you can get a 100 per cent guarantee that you can stop the operation. In the area of biological weapons I think that is probably true more than in any other. You can, however, tilt the playing field. You can raise the cost to the proliferator who knows he has to conduct a parallel programme, he has to conceal his facilities in mountain sides or other places. That raises the cost for him. And there is always the chance, the thought in the back of the mind, that perhaps one day an inspector might walk through the door and he would be caught. You raise a political pressure. As I say, it is certainly not a panacea. We are not starry-eyed about international treaties as being the answer to our problems. They have to be combined with export controls. They have to be combined with strong political measures against proliferators. They have when necessary, as we have seen in the case of Iraq perhaps, to be combined with more direct means, but as part of the toolbox we have always felt that the treaty regimes underpinned by compliance measures do have a value. We would be foolish to discard them and where we can strengthen them we should do so.

65. Accepting entirely that inspections will not be likely to produce a complete answer, particularly against a regime which is determined to try to conceal its programme, do you believe that there is actually any other weapon—and I am using that figuratively—or any other means that is likely to be still more effective to try to get divulging of what a particular dangerous state might have by way of BW than inspections? Surely you are not going to suggest that external or internal sources of intelligence is likely to be more successful. Surely you are not going to suggest that some form of paper declarations are likely to be more truthful than what the inspectors find. Is it not the case that whatever the weaknesses of inspections on the ground they must still remain the single most useful method of actually trying to see who is in violation of the Convention?

(*Mr Dowse*) I would say again what I said before. You are right: there is no silver bullet in this area, to use an American expression. What there is is a toolbox and we need to look at that toolbox and deploy that toolbox across the board. Inspections and compliance measures are part of that toolbox. They are not the whole answer.

66. Do you agree that inspections are the single most useful available tool?

(*Mr Lamb*) In terms of the Protocol and the issues that we are talking about one makes a distinction between inspections, which are essentially routine and would be the bread and butter activity of any organisation just as they are of the organisation in relation to chemical weapons, and what are variously referred to under the Chemical Weapons Convention as challenge inspections or under the Biological Weapons Convention Protocol as investigations.

67. I mean challenge as well as routine. Do you agree that of the available tools in the toolbox, inspections, routine and challenge, are the single most useful tool we have available to us?

(*Mr Dowse*) Challenge inspections, where they can be agreed, and that is a large *caveat*, are undoubtedly a valuable tool. Again, they are not the whole answer. Challenge inspections are only as good as the intelligence that they are based on, so there is another factor there, but we have been strongly in favour of making use of inspections, including challenge inspections.

Mr Chidgey

68. Following on from the questioning of Sir John, it would be helpful if you could give us some guidance and some more information on the UN role in this situation. Can you tell us what resources currently exist to enable the UN Secretary-General to undertake investigations into non-compliance with the BTWC? Of course, the follow-on from that is, it would appear these resources are inadequate and I would like to know where they are inadequate.

(*Mr Dowse*) The mechanism which is available to the UN Secretary-General dates from the 1980s I think. It was deployed for example when there were allegations of use of chemical weapons in Cambodia. It has not been that much used but essentially what it means is that where there is an allegation made of the use of chemical or biological weapons which is brought to the Security Council, the UN Secretary-General has the authority to mount an investigation of that allegation. I believe it is a requirement for the Security Council to put that to the Secretary-General.

(*Mr Lamb*) Correct. It has been used in one or two instances, mostly in respect to chemical weapons issues particularly in Mozambique and an allegation of CW use which was made there. It is also worth pointing out that under the Convention and as a result of the developments at a review conference in the early 1990s, there is a mechanism in place by

[**Mr Chidgey** *Cont*]
which a country can bring a compliance matter to the attention of States Parties to the Convention, and have that matter discussed at an informal meeting leading on to a formal consultative meeting. That meeting does have the ability to agree an inspection of the country in question. So there is a mechanism already under the Biological Weapons Convention which has been used on one occasion.

69. What in your view are the inadequacies of that process in resource terms?

(*Mr Lamb*) There is a time factor clearly. When we, as a Depositary, receive such a complaint, we have to arrange an informal meeting of all States Parties within 30 days. The formal consultative meeting must take place within 60 days. So you are already talking about two months before any effective action can realistically take place. In terms of the resources, none are available, and what would happen in the event it was decided that an inspection should take place. We would have to appoint inspectors, we would have to nominate inspectors, to undertake that. Those inspectors, their appointment and so on, would obviously also take time. They would not necessarily be people who were in the practice of engaging in inspections in relation to biological weapons incidents, so one is talking about expertise which might be lacking.

70. What in your view are the advantages of a free-standing international agreement to investigate non-compliance over the existing UN Secretary-General process? The key question is how could such an agreement be implemented, in your view?

(*Mr Lamb*) Just to be clear—

71. A free-standing international agreement to investigate non-compliance, and what are its advantages over the existing UN Secretary-General process?

(*Mr Lamb*) What it would do would be to create a mini-protocol, or a mini-organisation, for the prohibition of biological weapons. It would have some advantages. One would clearly need to agree a budget, and have inspectors who would be on call and available. But if one looks back at what was planned with the Protocol, the purpose of having a free-standing protocol based on four pillars—declarations, inspections, investigations (which is what we are talking about now) and the organisation which would implement it—means you would have a secretariat, fully professional inspectors, and they would have gained expertise and knowledge as a result of conducting the routine inspections when it came to a full-blown investigation, where clearly the stakes are much higher and the issues are much more sensitive. There are practical problems and difficulties about having a free-standing organisation to deal with that. However, I would argue it would be better than nothing.

72. You feel such an agreement could be implemented?

(*Mr Lamb*) I think it would be more difficult because in a sense it would require us to go back to the negotiations, and to some extent it is unlikely we would get agreement to such an organisation because one of the factors in the Protocol negotiations always was that the arms control and intrusive verification measures we argued for were always counterbalanced by other demands from non-aligned countries in particular that such an organisation should be used as a means of freeing-up and increasing the degree of trade, co-operation, technical exchanges and so on. That would be bound to be a second element which would have to be taken into account if we were to set up such a minimal or minimalist organisation. So we would need to go back to a minimal or reduced form.

73. As you said it is better than nothing, is it not worth putting some effort into this?

(*Mr Lamb*) I think it would be, but it is fair to say with the ending of the negotiations on the Protocol, countries are clearly not going to be attracted towards embarking on negotiations which might after a period of some years again not reach fruition. There is a certain wariness in looking at how we should go forward with respect to the Protocol or with the BTWC, which our Green Paper is intended to address, because we are leaving aside any attempt to relaunch negotiations or any attempt to regenerate the Protocol, and looking at the practical measures which we believe can be put in place and which will do some good.

(*Mr Dowse*) Our view is that the Protocol is not something which will be a valuable use of our effort to try and revive. We do not see that being in the present political situation something which we are going to take forward. What we can do is look to see what are the issues which the Protocol is attempting to address, and in what ways was it trying to address them, and can we take some of those measures and pursue them in other ways. That is really what we were trying to do with the package of eleven measures which we floated in our Green Paper. When you are looking at investigations particularly of alleged use, you might not need to set up a permanent organisation at all. One of the weaknesses of the current Secretary-General's mechanism is that he has no ready-made pool of experts to call on to make these investigations if an allegation of use is brought to him, so it takes time to gather the necessary expertise to send the mission. One could establish a pool, a list of names could be held by the Secretary-General of people who could be called on at very short notice. That is one way we could strengthen this without setting up some elaborate, even if on a small scale, international organisation and bureaucracy to carry it. This is the approach we have been trying to take, how can we pursue the objectives which were pursued under the heading of the Protocol in other ways.

Mr Hamilton

74. The Henry L Stimson Centre which is an arms control and security think-tank in Washington, from where we have just returned, recently hired a group of experts from the US pharmaceutical and biotechnology industry to assess the US Government's policy towards the draft Biological Weapons Protocol. The experts agreed with the US Government policy towards it—their rejection, in other words—because they said, and I quote, "no matter how good the inspection techniques, the inspectors would not have a fighting chance if they were too few in number, lacking in essential skills,

[**Mr Hamilton** *Cont*]
and not deployed on site for a sufficient amount of time to accomplish their jobs. The draft protocol was [therefore] deficient in all these respects." My question is, gentlemen, have you offered your US counterparts a critique of the Stimson Centre report or other studies of possible BW inspection regimes? If so, what has been the response?

(*Mr Dowse*) We have not offered them a specific critique of the Stimson Centre Report but the sort of issues which the Stimson Centre are raising are ones which were certainly aired at considerable length in the Protocol negotiations. There were some repeated and I think fairly intensive exchanges between the UK and others, and the United States, on some of these issues. This again comes back to the issue of benefit and burden. As I think I said earlier, from the UK's point of view, the Protocol as it was drafted—and we need to remember it was not the final text—in the middle of last year was not all we had wanted it to be. We would have liked to see something which was more robust in some of these specific areas which the Stimson Centre is touching on in terms of the degree of intrusiveness. That was not something which was going to be possible. We took a very hard look at the text together with our colleagues across Whitehall and our conclusion was nevertheless the balance of benefit versus the burden was in favour of the Protocol, but that is not to pretend we thought this was going to be the answer to all our problems.

(*Mr Lamb*) There have been numerous exchanges with various US trade associations and that view, as reported by the Stimson Centre, is consistent with what we have been hearing throughout the negotiations and we took issue with them on a number of counts. They were ironically instrumental in pressing for as short a period of inspection as possible because of course that has direct impact on the down time for any particular facility and therefore an inability to undertake its normal commercial activity. I think a point which needs to be made relates to the way in which the visits or the inspections would have worked under the Protocol, and what they were intended to do was to check the essential accuracy of the declaration which was made about that site. No one imagined that on a routine visit one would go to a facility and find BW activity. What one wanted to do was ensure that indeed the activity at that facility corresponded to what the country had indicated in its national declaration. In the event that the inspectors came back and reported there were anomalies or discrepancies or some concerns they had about the activity, at that point States Parties could have intervened and could have suggested either a further visit or indeed an investigation, a full-blown challenge inspection of that particular facility. So what was intended by the visit regime was a trip-wire system, if you like, which would set alarm bells ringing and cause further, heavier action.

(*Mr Dowse*) The other side of that is that as well as being a trip-wire it was also a confidence-building mechanism.

75. What other reports have actually been published which are critical of the draft Protocol or of possible inspection regimes?

(*Mr Lamb*) They have been produced by trade associations. The most prominent would be PhRMA, which is an American trade association, and they have produced a number of documents throughout the period of negotiations which were critical of the inspection regime which was being planned. The Stimson Centre Paper is, if you like, a collection of the more recent views.

(*Mr Dowse*) As I said earlier, the concerns of US industry—understandable because of the size of that industry and its position at the cutting-edge of biotechnology—were in general not reflected to that degree of seriousness by pharmaceutical industries elsewhere. We did have exchanges with our own national industry who did not take the position which the US industry took against the Protocol.

(*Mr Lamb*) The view is that somehow an inspection would have turned up a facility which was in the process of producing BW and probably weaponising it. Nonsense, that was never the case and never likely. Our approach was altogether subtler. I think sometimes a straw man is set up in order the better to knock it down. This was not what we had in mind.

Andrew Mackinlay

76. On page 9 of the Green Paper, Confidence Building Measures, at the Third Review Conference, or consequent upon that, it says, "Submissions were now also required on the existence of national biodefence research and development programmes, on whether past defensive or offensive BW programmes had existed, and on human vaccine facilities." We are also urged to contemplate how we could come to the aid of parties who might be subject to attack. Can you bring us up to speed both on what we could do, or what could be done with others, to respond to people who might suffer attack? Also, what about our own human vaccine facilities? I realise this might be primarily the Department of Health but in a sense we have an obligation consequent on the Third Review Conference to be satisfied about that. Could you help me on both those points?

(*Mr Dowse*) We respond to this CBM requirement. One of the problems with these CBM requirements is that they have tended to be honoured in the breach rather than in the observance. The UK, nevertheless, does put forward an annual declaration in response to this and we have been quite scrupulous in doing so. Not all other States Parties do. One of the proposals that we have put forward later in our proposals in the Green Paper is to strengthen these requirements and to try and get more consistent and more full reporting under this area. As far as our national vaccine facilities are concerned, I think that really is a matter for the Department of Health rather than for the Foreign Office. We would be quite happy to provide you with a copy of our most recent return under the confidence building measures[5].

77. Thank you very much. It seems to me, listening to the problems we have as regards the United States, the concerns from both the security of point and also commercial interests, and also what you and I

[5] Not printed.

[**Andrew Mackinlay** *Cont*]
discussed earlier, is not the way forward, although it would not be the whole story, if we could get a treaty or agreements so there would be a common standard of national oversight? Our legislation, which clearly I think is flawed, to some extent is nonetheless a very good start, because we have already criminalised the conduct of some of these things. Could that not be something which we could suggest around the world? I also notice that there are references in there to the 2001 Act which could be a model.

(*Mr Dowse*) The Anti-Terrorist Act?

78. Yes.

(*Mr Dowse*) I think you are right, we do need greater consistency, more international standards in this area, greater spreading of best practice. This can be done informally or formally. Some of the proposals we have put forward in the Green Paper—and in fact in these cases they overlap with some of the proposals by President Bush last year—really go to address this issue of criminalising and also issues to do with greater standards of protection for dangerous pathogens.

79. Has it been or is it being pursued?

(*Mr Dowse*) We are. When we are discussing with our partners now the sort of package that we think might stand a change of providing a basis for agreement at next month's Review Conference these are very much the sort of measures we would like to promote additional work on. If that is not agreed at the Review Conference, and nothing is guaranteed, we will certainly from the British Government's point of view want to pursue them anyway with like-minded countries. You earlier drew rather a good parallel with the situation in the nuclear field where the IAEA has established certain standards for nuclear materials and there is certainly a case that we need to take forward work on that sort of approach in the chemical and biological areas.

80. Going back to some earlier questioning, it seemed to me you and your colleague are handicapped because some of these things are at such a level they can only be prosecuted at the political level. The impression I get even in that reply is, yes, you agree and it has been talked about, but I suppose what is at the back of my mind was in some of the replies you gave to Sir John you were saying to yourself, "This is a matter for Straw, not for us" or the Prime Minister. There really needs to be a banging on the door. I cannot help feeling that you are signed up to what we are saying but there has not been sufficient action at the political level. It could be as high as the Prime Minister because, after all, taking Sir John's point about President Bush's statement, it seems to me somebody here needs to have seized it, but it cannot be at your level.

(*Mr Dowse*) I think I would question your suggestion about the efforts we are making as officials. Some of these are quite technical and they do not have political value. Certainly the Green Paper itself was very much the initiative of the Foreign Secretary personally, and it was he who, after the suspension of the Review Conference last year, very much took the initiative.

Chairman: I would like to make progress. Mr Hamilton?

Mr Hamilton

81. Can I turn now to assistance in the event of, or threat of, use of biological weapons. The UK National Statement at the Fifth Review Conference proposed that the Convention be strengthened through, "Making the assistance elements for Article VII (which says that each state undertakes to provide assistance to any party exposed to danger as a result of a violation of the Convention) more specific." The Green Paper argues that, "States Parties could reiterate and re-emphasise their existing obligation under the BTWC to provide various kinds of assistance in the event of a BW attack." Graham Pearson of the University of Bradford also proposes the "creation of a small secretariat which could collate offers of assistance from States Parties and serve as a focal point to facilitate their provision in the event of an attack". My question is, what measures currently exist for the co-ordination of assistance to States Parties in the event of attack and how might they be enhanced? Secondly, how do you regard the proposals to create a small secretariat to collate offers of assistance?

(*Mr Dowse*) The answer to your first question is, there is not a great deal at the moment as regards co-ordination of international assistance to a state, it would really be *ad hoc*, and that is one of the issues we think it is worth trying to address. There are some proposals which are being brought forward at the moment, for example in the context of the forthcoming NATO Summit there is an initiative in the NATO context for greater co-ordination of NATO countries' collective response, their ability to respond and the procedures for responding to a chemical or biological attack. So that is one area where it is being addressed specifically in NATO. It is not surprising, NATO is a collective defence organisation, the countries there are used to this sort of co-ordination. Beyond that, there really is not very much, and that is really why we, when producing the Green Paper and putting forward our package, believed this was something which was worth taking forward.

(*Mr Lamb*) That proposal at the Review Conference was obviously part and parcel of the original Protocol negotiations, and originally taken forward in that context. With the collapse of those negotiations, clearly we need to start again, as it were, and, as Tim has said, the extent to which there is concerted international co-operation on this is non-existent.

82. Would you support in principle Graham Pearson's proposals for a small secretariat?

(*Mr Dowse*) Certainly we are very prepared to discuss that and I think we would need to be convinced it would serve a purpose, whether this could be handled through existing mechanisms like the UN, or perhaps NATO could make some collective offer, or whether in fact there is a requirement. But it is certainly something we would be very prepared to look at.

Sir John Stanley

83. Can we just go to paragraph 54 of the Green Paper. I would like to go briefly through, if we may, the five specific areas for immediate action which the British Government is postulating. If I could just take them in turn. The first one is the, ". . . establishment of an effective and legally binding process for investigation into suspected non-compliance with the Convention, to include misuse of facilities, unusual outbreaks of disease believed to be connected to a violation of the Convention, and alleged use of BW." You have already dealt with that in terms of the discussions which you are trying to take forward in Geneva. That is presumably how the British Government is trying to handle that. Is there anything you want to add to the evidence you have already given on that subject?

(*Mr Dowse*) I would simply say that we are at a fairly delicate stage of discussion at the moment in preparation for the Review Conference. We are trying, quite intensively now, to develop a package which will command the widest possible support at the Review Conference. We hope that the package which we are able to develop will contain some of the key elements we have in this Green Paper. Those that are not or ultimately may not be included in such a package, we will look for ways in which we can pursue them outside the framework of the Geneva Conference.

84. On the second one, I was somewhat perplexed as to why it got in here. Obviously it is highly laudable. "Greater efforts to tackle the threat posed by natural infectious disease to human, animal and plant health." That appears to me to be a very important health issue but I did not quite see how it got into this Green Paper which is basically on the arms control side. Perhaps I have missed something. Do help me please.

(*Mr Lamb*) It is where there would have been a very real symbiosis between public health issues and the intended Biological Weapons Organisation. Clearly one of the proposals which was also under discussion in the Protocol was the setting up of an epidemiological surveillance network as part of the eventual organisation, which would have established a pattern of disease worldwide. That would have had immediate beneficial effects for the WHO, for example, and that information could have been shared with the WHO. It would have also served a valuable purpose for the organisation because in trying to plot or discover where there has been a biological attack, you would want to have some overall pattern of understanding of disease worldwide to spot an anomaly. It is not quite as simple as that because clearly a proliferator might well exploit the fact that a particular disease was endemic in a country and use that specific agent to better conceal an attack. But that is the way in which there was a very real symbiosis between something which was of genuine public health value and which would have been directly valuable to the detection of a biological weapons attack.

85. That is a very helpful answer. The third one is very important, and obviously we have touched on it a little. "Criminalisation of violations of the Convention." Just two angles on that. Can you tell me whether the UK Government in terms of UK national criminal legislation is contemplating any further criminal legislation in this area? Obviously one takes it as read that any attempt to engage into a conspiracy or actual use of BW inside the UK would be comprehensively covered by the criminal law on conspiracy, murder, et cetera, but is there any suggestion within the Government—and I will come to the international side in a moment—that any further national legislation in this area is required?

(*Mr Dowse*) We are confident following the passage of the Anti-Terrorist legislation last year, which did contain various clauses concerning weapons of mass destruction, that our legislation is now as comprehensive as it needs to be.

86. On the international side, the question I would like to put to you—and I appreciate you are not lawyers and if your department wants to come back to us with a considered, legal view, we will entirely understand—as far as criminalising violations of the Convention internationally is concerned, can you tell us whether if an individual or a state used BW (and we are all of course aware of speculation that in the event of any military operations against Iraq there is a possible risk that the Iraqi regime might retaliate with BW either against forces entering its country or possibly against Israel or other potential targets) under present legislation governing the international criminal court would it automatically fall within the jurisdiction of the ICC?

(*Mr Dowse*) I think we would need to take advice on that question. I would like to take up your invitation to refer that[6].

87. Can we have a note from your legal department or whoever is appropriate inside the Foreign Office in answer to that specific question? We would definitely like to know what the FCO's legal view is at the moment.

(*Mr Lamb*) I believe it would because it would be considered as a crime against humanity.

88. That is what I had assumed.

(*Mr Lamb*) As a result of the existence of the 1925 Protocol and indeed the 1972 Convention, it has entered into international customary law that any such use would be. We will need to take formal advice though.

89. I hope that is the answer, that anybody using BW and indeed CW is potentially somebody who could be arraigned before the ICC. The fourth one I think we have covered as far as national legislation is concerned, "the implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification." In relation to the UK, is the UK Government currently satisfied with the present legislation on the statute book here for the proper protection of pathogens and other dangerous substances in the BW area? Is that legislation in the Government's judgment currently adequate or does it need strengthening?

(*Mr Dowse*) I think on that too we would like to take advice from other government departments who are more directly responsible for domestic legislation. In terms though of whether we have

[6] *See* Evidence page Ev 24.

[**Sir John Stanley** *Cont*]
implemented the requirements of the BTWC in UK domestic legislation, we have a note on this which we would be very happy to provide to you, which takes each element of the BTWC and explains how that has now been translated into UK law[7].

90. Thank you for that, plus a couple of results of your further consultations within Government, the HSE and so on. Lastly, how are you seeking to achieve the fifth point, "greater transparency between States Parties about their legitimate activities whose dual-use capabilities might be in danger of being misconstrued or misused." A key dual use area. How is the British Government taking that forward?

(*Mr Dowse*) That is addressed by our proposal for revised confidence building measures, where we specifically say we should look at it. It would be something which would be required to be achieved through international agreement, to see whether there is room for improving the scope or the level of detail to ensure more useful annual returns from States Parties and indeed more consistent returns by States Parties. As I noted earlier, this is a requirement which has tended to be observed in the breach. I should say that what we have been putting forward in the Green Paper are proposals. It was a consultative document. We have received responses, as we have said, from a variety of sectors. We are going to be taking this forward. We have a round table tomorrow with academics, with industry, with other commentators, to discuss further some of the issues which have been raised and the responses to the Green Paper. We would expect, and our hope is, if we can agree a package of measures at the Review Conference next month that the practical outcome would be further multilateral working groups to try and reach specific agreement on some of these individual steps. That is the way forward. We are not going to be in a position to present something and expect the rest of the international community to sign up to our ideas on the spot. There will be working groups. And some of these ideas do need to be elaborated, which is why it was presented as a consultative document. But our aim has been to keep the issue of countering biological weapons and the spread of biological weapons high on theinternational agenda and to produce some constructive ways to take the work forward internationally following the collapse of the Protocol negotiations.

[7] *See* Evidence pages Ev 25-34.

Andrew Mackinlay

91. On page 10, paragraph 29, it says, "The Third BTWC Review Conference . . . established an open ended . . ." and they are the words I found interesting, ". . . expert Group to evaluate possible verification measures from a scientific and technical standpoint." I have read that two or three times. I well understand there is inertia politically but the impression I have reading this is that "open ended" really does mean open ended and from these boffins—because it seems to me this was not civil servants, this has been handed down to these academics—frankly nothing much has emerged. Am I right or am I wrong?

(*Mr Lamb*) That would be very wrong and indeed I suggest I would be pilloried by my colleagues who were involved with it because they were indeed government representatives and they were boffins, if you want to use that term, but they were specifically tasked with looking at how one would address the task of trying to determine whether biological weapons were used and the circumstances in which they were used, and as a result of that technical work the negotiations post-1994 on the Protocol went ahead. So they performed a very valuable task in mapping out the scientific parameters of the issue which we have to address as simple civil servants.

Andrew Mackinlay: In which case I apologise, I misread it totally.

Chairman: That reply to Mr Mackinlay was reassuring at least. There was not very much for our comfort elsewhere in the questioning. Gentlemen, there are a number of questions which arise, particularly from Sir John's final series of questions, which need to be addressed by you. Other questions were generated by the discussion. I anticipate that I may be sending further written detailed questions to you so there will be quite a lot of homework. Can I say that perhaps there is not the urgency on the international scene which we would like but we are pleased, I am sure, that the British Government has tried to keep the issue live by the publication of the Green Paper. We look forward to further dialogue. Very many thanks for your evidence.

Memorandum from the Foreign and Commonwealth Office

BIOLOGICAL WEAPONS

I enclose the supplementary information further to the recent oral evidence session on the Biological Weapons Convention Green Paper, which you requested in your letter of 28 October 2002.

1. List of BTWC non-signatories and signatories that have yet to ratify (Q7).

2. Synopsis of responses to the Green Paper (Q17).

3. Note on overseas science students in UK, including information on the voluntary monitoring scheme (QQ28–29 and 50).

4. UK's most recent Confidence Building Measure return (Q76)[1].

[1] Not printed.

5. Note on whether jurisdiction of ICC would cover use of BW by Iraq (QQ86–88).

6. Note on transposition of BTWC into UK law (Q89).

7. Note on which proposed Confidence Building Measures have the greatest potential to increase transparency.

8. Note on how workable are the proposals developed by academics to prohibit CBW under international criminal law; and which the Government has considered and would consider adopting.

Ministerial approval for the FAC to receive a copy of the UK Confidence Building Measures return is, however, on the condition that the Committee should protect its confidentiality. If the FAC wishes to attach it to their Report, or quote from it, or otherwise make any of it public, they should first seek Departmental approval. Before approval can be given, the Department will have to obtain permission from the companies and facilities that provided the data.

I regret that it was not possible to meet your request to receive the supplementary evidence by 6 November.

Parliamentary Relations & Devolution Department

12 November 2002

1. List of Non-Signatories to the BTWC and Signatories Yet to Ratify (Q7)

Non-signatories to the BWC

1. Andorra
2. Angola
3. Antigua & Barbuda
4. Azerbaijan
5. Cameroon
6. Chad
7. Comoros
8. Cook Islands
9. Djibouti
10. East Timor
11. Eritrea
12. Guinea
13. Israel
14. Kazakstan
15. Kiribati
16. Kyrgystan
17. Marshall Islands
18. Mauritania
19. Micronesia
20. Moldova
21. Mozambique
22. Namibia
23. Nauru
24. Niue
25. Palau
26. Sudan
27. Tajikistan
28. Trididad & Tobago
29. Tuvalu
30. Western Samoa
31. Zambia

Signatories yet to ratify the BTWC

1. Burundi
2. Central African Republic
3. Cote d'Ivoire
4. Egypt
5. Gabon
6. Guyana
7. Haiti
8. Liberia
9. Madagascar
10. Malawi
11. Mali
12. Myanmar
13. Nepal
14. Somalia
15. Syrian Arab Republic
16. United Arab Emirates
17. United Republic of Tanzania

Importance of Universality, Particularly in Regions of Concern

Universality is an important long-term objective as part of international efforts to curb the proliferation and possible use of biological weapons. Most recently it has become an important tool in the war against terrorism, in trying to deny terrorist groups places where they may be able to conduct activities prohibited by the Convention.

We are most concerned about ensuring that countries in regions of international tension are party to all WMD conventions, in particular those in the Middle East.

2. Summary Analysis of Responses to BTWC Green Paper (Q17)

Introduction and Overview

1. At the closing date for responses on 13 September there were 13 written responses to the BTWC Green Paper; two further submissions arrived shortly after the deadline. Three responses have come from US academics/NGO bodies; seven from UK academics/NGOs; two from OGDs; two from trade associations and one from a professional association: details are in the annex[2]. The overwhelming reaction is strongly supportive and welcoming with the UK's leading role on biological disarmament acknowledged; many Green Paper proposals are strongly endorsed with suggestions on how these might be followed-up; constructive criticism is offered, especially on the limitations of certain options and problems that would be encountered in turning them into reality. All believe that efforts at an international level should continue, although a view was expressed that UK and Europe should not take unilateral steps that are not followed internationally.[3] Such developments especially on on-site activities, could have a long-term detrimental effect on UK Industry.[4] US attitudes are condemned and there are recommendations for action without the US. There is widespread support and full endorsement of the multilateral and a legally based approach outlined in the

[2] Ev 23.

[3] Dr Philip Wright, Director of Science and Technology, The Association of the British Pharmaceutical Industry, 25 September 2002.

[4] Strengthening the Biological and Toxin Weapons Convention: Countering the threat from Biological Weapons. Response from the Bio Industry Association (BIA) 17 September 2002.

paper. In contrast, one view argues that the paper's central weakness is it failure to reiterate strongly previous UK support for a comprehensive legally binding verification regime.

DETAIL

2. This note will concentrate on reactions to the five priority areas identified in the Green Paper's paragraph 54:

- establishment of an effective and legally binding process for investigation into suspected non-compliance with the Convention to include misuse of facilities, unusual outbreaks of disease believed to be connected to a violation of the Convention and alleged use of BW;
- greater efforts to tackle the threat posed by natural infectious disease to human, animal and plant health;
- criminalisation of violations of the Convention;
- the implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification; and
- greater transparency between States Parties about their legitimate activities whose dual-use capabilities might be in danger of being misconstrued or misused.

(i) *establishment of an effective and legally binding process for investigation into suspected non-compliance with the Convention to include misuse of facilities, unusual outbreaks of disease believed to be connected to a violation of the Convention and alleged use of BW.*

3. This proposal attracted mixed reactions. On the whole most respondents were strongly supportive, but others noted that there would be substantial political and legal problems in taking this measure forward. Investigations are still seen as a key measure to strengthen the Convention—inclusion of misuse of facilities is commended or seen as particularly helpful, [5] One respondent agrees that a new free standing agreement on investigations is unlikely to be acceptable unless provision is made for scientific and technical cooperation within any agreement.[6] Another comment observes that in the absence of viable alternatives, the existing mechanism that permits the UN Secretary-General to conduct investigations or fact-finding missions into the use of chemical and/or biological weapons should be strengthened, as the Green Paper suggests.[7] Another view was that investigations into non-compliance must have international backing. All of the key developed States Parties would need to participate to ensure credibility internationally.[8]

4. Other reactions to this proposal are more critical. Two respondents have substantive objections to the proposal, essentially on grounds of practicality, not that they are opposed to investigations. One recorded that although this would be a useful measure, it is not likely to be achievable in light of AHG experience and therefore effort should not be wasted on it.[9] The other critical response on investigations does not see how it would be possible to ensure that facilities and suspicious outbreaks of disease could be covered within the existing system. Seeing how this would be done procedurally is also seen as a serious problem: securing new resolutions are seen as problematic.[10] Another respondent suggested that investigations should be limited to alleged use of BW and alleged violations of the BTWC. Direct us of "suspicious outbreaks of disease" as a separate criterion for non-compliance is unlikely to be well received by developing countries where most major diseases occur. It would be preferable to see unusual outbreaks of disease as a

[5] Strengthening the Biological Weapons Convention Review Conference Paper No 6 Return to Geneva: The United Kingdom Green Paper June 2002 Series Editors Graham S Pearson and Malcolm R Dando, University of Bradford page 39 paragraph 90; Daryl G Kimball, Executive Director, Arms Control Association, Washington DC, 22 July 2002.

[6] Strengthening the Biological and Toxin Weapons Convention: countering the threat from Biological Weapons Cm 5484 April 2002 Response of the Mountbatten Centre for International Studies University of Southampton, 27 August 2002.

[7] VERTIC's response to the UK's Green Paper Strengthening the Biological and Toxin Weapons Convention: countering the threat from Biological Weapons, 3 September 2002.

[8] ABPI.

[9] Federation of American Scientists Working Group on Biological Weapons Comments on the UK Green Paper "Strengthening the BTWC: countering the Threat from Biological Weapons", 13 August 2002.

[10] Nicholas Sims, Department of International Relations, London School of Economics, Response to UK Green Paper of 29 April 2002, 29 August 2002.

possible source of evidence for building a case for non-compliance with the BTWC of Geneva Protocol, but not as providing the sole basis for a change of non-compliance.[11]

(ii) *greater efforts to tackle the threat posed by natural infectious disease to human, animal and plant health.*

5. There is widespread support for this measure, although it is noted that it would contribute indirectly to a strengthening of the Convention.[12] The BMA believes that the Commonwealth network could lead a good example to others of co-operation. This should include disease surveillance, but also planning in terms of purchase of vaccines and immunisations. In order to increase efforts on detection and diagnosis, the BMA recommends that medical education courses should be available to familiarise medical professionals with the signs of biological warfare-related disease.[13] Greater coherence of disease surveillance at international level would further boost resilience to BW attack.[14] One group, who shares the view that both international and national efforts are needed in this, also argues that action independent of arms control considerations is needed. Support from individual States Parties for a global, multilateral programme to improve and speed detection of infectious disease outbreaks should be sought.[15] Others note that this measure would fit cogently with to the original objective of Article X of the BTWC, co-operation for the prevention of disease. The importance of this Article to developing countries should not be underestimated.[16]

6. Detection, diagnosis and development of anti-infectives, as argued in one submission, all require industry participation. Accordingly, it is essential to engage with industry and identify appropriate incentives. Creating effective partnerships between national and international NGOs, Government, industry and academe is the only way to ensure surveillance, detection, diagnosis and counter-measures work. Such partnerships can be seen in existing campaigns against tropical diseases such as malaria, for example.[17] In a similar vain another comment recommends that there should be incentives to commercialise the development of new detection methods, diagnostic tests and therapies could usefully form part of this initiative. Research will not be undertaken unless, if it is successful, the resulting products can be protected by patents.[18]

(iii) *Criminalisation of violations of the Convention*

7. One respondent argues that the case for a separate treaty can best be made for international criminalisation of BW activities. Such a Convention could supplement the BTWC and other areas of applicable international law by making individuals indictable and prosecutable regardless of nationality or location of the crime.[19] It is even argued that such a Convention would be valuable even if limited to narrower coverage such as the possession, transfer and use of BW. Others, expressing strong support for such a Convention, regard it as an additional bulwark against the use of CBW, and would expect the UK to support vigorously any such proposal.[20] One response notes that it is important to keep the project close to, and reinforcing the treaty regime of the BTWC; and to stop it being diluted into an anti-terrorist measure; it should remain sufficiently comprehensive to cover government officials and scientists as well as other individuals. One of the co-authors of the original proposal argues that the deterrence mechanism, which such a Convention could provide, needs to be an international initiative, one that would endanger "those at every level responsible" the moment they set foot in countries other than their own.[21] There is little international law whereby individuals—as opposed to states—can be held accountable for acts of BW armament or use. Such a convention would deny Crown immunity, something the 1974 Biological Weapons Act retains, even as amended by the 2001 Anti-Terrorism, Crime and Security Act.

8. A US respondent comments that the step towards considering an international legal response to bioterrorism should be an examination of the issues carried out by an international legal organisation such as the International Law Commission. This might be followed by a decision either to develop a comprehensive

[11] Dr Susan Wright, Research Scientist, Institute for Research on Women and Gender, University of Michigan Comment on "Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Cmnd 5484 (April 2002).

[12] Bradford University June 2002.

[13] Strengthening the biological and toxin weapons convention: countering the threat from biological weapons, Dr Vivienne Nathanson, British Medical Association 6 July 2002.

[14] FCO Green Paper: Strengthening the Biological and Toxin Weapons Convention, Professor David King, Chief Scientific Adviser, Office of Science and Technology, 2 August 2002.

[15] Federation of American Scientists Working Group on Biological Weapons Comments on the UK Green Paper "Strengthening the BTWC: countering the Threat from Biological Weapons", 13 August 2002.

[16] Strengthening the Biological and Toxin Weapons Convention: countering the threat from Biological Weapons Cm 5484 April 2002 Response of the Mountbatten Centre for International Studies University of Southampton, 27 August 2002.

[17] ABPI.

[18] BIA.

[19] Federation of American Scientists.

[20] MCIS.

[21] Professor Julian Perry Robinson, Science Policy Research Unit, University of Sussex, Comments on FCO Green Paper about the BTWC, 12 September 2002.

convention on terrorism that would encompass possession and use of biological weapons or to continue to enlarge the present set of conventions addressing specific categories of harm to civilians.[22] The same respondent notes that national criminal legislation adopted by all States Parties is clearly desirable. However, it is also widely understood that this does not go far enough since the requirements adopted by states do not apply to non-citizens in their territories who develop, produce, acquire, or use biological weapons in other states.

(iv) *the implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification.*

9. Most respondents commented on this measure: all are supportive, but some point out the need to avoid duplicating or undermining implementation of existing efforts in this area.[23] One respondent suggest that any Convention on the Physical Protection of Dangerous Pathogens should include mechanisms for establishing the veracity of information declared under its provisions and for quality control in implementing the standards that it establishes.[24] Given the need to avoid duplication, one recommendation suggests that it might be possible to revise the WHO Laboratory Safety Guidelines and/or similar mechanisms in the FAO and OIE.[25] Another points out that WHO could be asked to issue international biosafety standards for specific pathogens. Apparently WHO has been willing to do this for some years, but has lacked the funds. An extra-budgetary donation of $100,000 would probably suffice.[26] There was a view that an additional international convention on physical protection of dangerous pathogens was not required. In this view there are already significant regulations in terms of handling and transfer of dangerous pathogens and live genetically modified organisms. Additional measures could impede research.[27] Conversely, if such a Convention were to be sought it would need to be carefully negotiated to ensure that it did not restrict legitimate research and development in vaccines and therapeutics.[28]

(v) *greater transparency between States Parties about their legitimate activities whose dual-use capabilities might be in danger of being misconstrued or misused*

10. Although there was no single measure proposed in the Green Paper with this as the sole objective, the proposal dealing with CBMs envisaged the need for greater transparency. In this respect one respondent remarks that biotechnology has maleficent as well as beneficent potential, and there is astute reflection in the Green Paper on the dual applicability of some biotechnology both to the common good and to threatening new weapons. There is wide recognition that the record to date of the existing CBMs has been disappointing: remedies are suggested. One offers the view that simply expanding the declaration requirements is unlikely to be sufficient to improve the quality, quantity or timeliness CBMs. Instead they should be made legally binding and expanded.[29] This assessment is echoed by another respondent who argues that revision of CBMs without a secretariat to follow-up, provide assistance to States Parties and analyse the data, has little value. A secretariat of even just one dedicated official—would potentially increase the value of the present CBMs.[30] The declaration should be translated into all official languages and complied into a publicly accessible database.[31] Alternatively, translation of all submission into a common language would also have value.[32] There would certainly be benefit to State Parties from the existence of a small secretariat to provide continuity of attention to those issues and to collate, translate and issue all relevant documentation. In the view of this particular commentator, such a small secretariat would benefit from efforts undertaken on national criminal legislation, active promotion of universality and withdrawal of reservations to the Geneva Protocol.[33]

11. A detailed commentary on the CBMs makes several proposals.[34] It is now appropriate to examine the actual modalities of submitting the necessary information to the United Nations. The forms could be redesigned and made available electronically through the UN or through the Depositaries. Non-submission

[22] Dr Susan Wright, Research Scientist, Institute for Research on Women and Gender, University of Michigan Comment on "Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Cmnd 5484 (April 2002).

[23] Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Dr Jim Neilson, Head of Biological Agents Policy, Health and Safety Executive, 7 August 2002.

[24] VERTIC.

[25] MCIS.

[26] FAS.

[27] ABPI.

[28] BIA.

[29] VERTIC.

[30] FAS.

[31] VERTIC.

[32] FAS.

[33] Nicholas Sims, Department of International Relations, London School of Economics, Response to UK Green Paper of 29 April 2002, 29 August 2002.

[34] MCIS.

of the necessary information could invoke reminders to all States Parties on the due date and at regular intervals thereafter. Detailed consideration should be given to providing the necessary financial resources to actually translate and distribute the CBM returns in a more effective manner because the actual CBM submissions are of limited value to most states parties in their current format. Mechanisms should be created to enable clarification of the returns. The Review Conference provides an opportunity to examine and agree modalities for pursuing clarification of information submitted under the CBMs under Article V of the BTWC. Additional CBMs should not automatically be ruled out, such as the extension of the submission on vaccines to include animal vaccine production facilities. Other new CBMs which might be explored include: a submission on relevant scientific developments related to Article I, a one off detailed submission on the implementation of Article II, substantive information on non-proliferation measures under Article III, national implementation legislation and administrative measures under Article IV, assistance and protection policies under Article VII, and information on Article X implementation.

12. There is also a proposal that the UK could take a step forward by making the data it submits in its CBM publicly available.[35] Although it is noted that the government-to-government nature of the information means the data is beyond the public realm, that policy does not preclude the UK from placing its own submission in the public domain. Upon submission the CBM return could be placed in the House of Commons Library, be circulated to industry, professional bodies and academic institutions, and be made available to individuals and other organisations upon request. Consideration might be given to actually placing the return on the FCO and MOD websites, but the proposers of this course of action recognise that any security implications would need to be considered in this area. Greater transparency about our the UK CBM returns would, it is argued, enhance confidence among states parties, set a standard for other States Parties to follow and improve understanding among the UK population as a whole about the scope and purpose of the BTWC. Despite all this one US commentator remarks that politically binding measures are less promising as evidenced by the poor implementation of CBMs.[36] Any on-site measures that might result from the CBM process must ensure that confidentiality was protected and that the burden kept to a minimum.[37]

13. One submission[38] argues that secrecy about the use of BW agents creates suspicion and undermines good faith between countries. Therefore the UK's decision to remove details about the use of genetically modified potential BW organisms from the public register on national security grounds is not scientifically justifiable and could undermine confidence in the UK's intentions.[39] It is argued that public accountability is an important dimension of a democracy and makes clandestine BW research more difficult.

Scientific Advisory Panel and codes of conduct for professional bodies

14. Two proposals in the Green Paper attracted significant support as well as some detailed ideas on how such ideas might be taken forward: the concept of a Scientific Advisory Panel and codes of conduct for professional bodies.

15. The Government supports the model of the International Panel on Climate Change for intergovernmental bodies that deal with areas of global significance as recommended by the House of Commons Science and Technology Committee. An advisory panel dealing with issues such as emerging new infection or the possibility of genetically modified organisms in bioterrorism could benefit from that type of structure.[40] In establishing such a Panel issues for consideration include getting the balance of expertise right,[41] bringing together the best expert sources and open transparent procedures.[42] In this regard another respondent said the some minimum administrative body with funding to convene the Panel and provide secretarial backup would be needed.[43] A key point in the view of one respondent was that ongoing effort is

[35] MCIS.

[36] Daryl G Kimball, Executive Director, Arms Control Association, Washington DC, 22 July 2002.

[37] ABPI and BIA.

[38] Gene Watch.

[39] This is referring to changes made under the Genetically Modified Organisms (Contained Use) (Amendment) Regulations 2002 following the event of 11 September.

[40] FCO Green Paper: Strengthening the Biological and Toxin Weapons Convention, Professor David King, Chief Scientific Advisor, Office of Science and Technology, 2 August 2002.

[41] ABPI. The pharmaceutical industry has significant expertise in biotechnologies and the underlying mechanisms of disease, especially infectious disease—a significant proportion of leading clinical and non-clinical scientists are employed in this industry.

[42] FCO Green Paper: Strengthening the Biological and Toxin Weapons Convention, Professor David King, Chief Scientific Advisor, Office of Science and Technology, 2 August 2002. The key issues to be addressed in establishing such a panel are already reflected in Office of Science and Technology Guidelines 2000 on Scientific Advice and Policy Making.

[43] FAS.

[44] HSE.

[45] Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Comments from Gene Watch UK, 16 August 2002.

needed to identify credible scenarios that need to be addressed, which supports the need for a Scientific Advisory Panel to meet frequently.[44] A Scientific Advisory Panel would also help the scientific community act as a watchdog if it suspects that offensive BW research is taking place.[45]

16. As one respondent observes, there are a number of examples of successful national and international science advisory boards that could serve as a model for this panel, such as the European Pharmacopoeia Commission where representative scientists from the European countries work productively together to agree formal monographs defining the qualities of medicinal drugs.[46] In the view of this respondent there are a number of key features that are invaluable in ensuring the success of such panels: expertise, independence, personal attitudes of members, strong leadership, clear mandate, small size, regular meetings and administrative support. Membership rotation is also recommended to ensure new perspectives and input. Another respondent suggests that as its very first activity a Scientific Advisory Panel should be directed to oversee a scientific study of the effectiveness of all types of visits and inspection relevant to the BTWC.[47] Industry would be in a position to comment on capacity building, commercialisation of new technologies and requirements for the development of vaccines, antibiotics, antivirals and decontaminants.[48] Such a panel might meet once yearly.[49]

17. Issues of scientific responsibility and ethics in research are of pre-eminent importance. This is particularly given recent experiments with potentially dangerous implications, such as those conducted in Australia in which the interleukin-4 (IL-4) gene from a mouse was inserted into the mousepox virus, enhancing its virulence and the synthesis of the polio virus from only its chemical components in a laboratory.[50] For this reason, in the view of one respondent, efforts to increase awareness of ethical issues amongst researchers and to improve standards in the scientific community should be a priority.[51] One option would be through codes of conduct, although the complexity of this means that there are significant challenges ahead, such as ensuring international co-operation, enforcement and how to move forward in a variety of activities other than a code of conduct.[52] Another respondent, whilst recognising that a code of conduct would support the BTWC, notes that a code would not be a sufficient response to the problem or a satisfactory alternative strategy.[53] Others recognise that codes of conduct are a long-term measure that must be part of a much larger strategy to be effective.[54] A professional association remarks that scientists and physicians have an ethical responsibility to reinforce the central norm that biological and genetic weapons are unacceptable.[55]

18. One submission suggests that what is needed is an international code to which Governments, professional bodies, associations, academics and others can "buy-in to". This should provide guidelines but not further bureaucracy. By openly publicising it and those who have signed, it should enhance public confidence and, by their mission, identify particular organisations, Governments or constituencies who have not.[56]

Other reactions

19. The Green Paper highlights the possible role for academics and NGOs. One UK respondent asks whether the Green Paper should not also have envisaged roles at the international level given the paper's emphasis on international co-operative efforts to counter BW. One such possibility, in the view of one respondent,[57] lies within the international academic community where new capacity now exists for conducting soundly based policy-orientated research into core BTWC problems (such as dual use). The new capacity has been brought into being by the *ad hoc* studies of different aspects of bioterrorism commissioned by EU bodies in the aftermath of the events of 11 September. Such networks, it is feared, will dissolve once the studies are done, thereupon dissipating a rare international resource that could be deployed in other efforts to strengthen the BTWC. It is suggested that FCO support could enable such work to be carried forward. The work might proceed within the framework of, for example, the impending Economic and Social Science Research Council

[44] HSE.

[45] Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Comments from Gene Watch UK, 16 August 2002.

[46] Royal Society.

[47] VERTIC.

[48] BIA.

[49] BIA.

[50] Royal Society.

[51] Royal Society.

[52] Royal Society.

[53] MCIS.

[54] FAS.

[55] BMA.

[56] ABPI.

[57] Professor Julian Perry Robinson, Science Policy Research Unit, University of Sussex, Comments on FCO Green Paper about the BTWC, 12 September 2002.

National Security Challenges programme, or possibly even under the auspices of an EU Council or Commission subsidiary, provided the framework favoured internationally networked research, especially in projects that could link American researchers into the work.

20. The principal NGOs that concern themselves with the BTWC, based in countries such as Germany, South Africa, Switzerland, the UK and the USA, are discussing possible ways of coming together in order to concert their activities globally. This coalition is developing a programme that would combine global networking and publication, including publication of an annual state-of-the treaty report, so as to increase awareness of the BTWC and to monitor its implementation by individual states parties, including implementation of its associated confidence-building measures. On the precedent, not least, of its financial support for a rather similar international NGO enterprise, Small Arms Survey, it is suggested that HMG might want to consider helping this one too.[58]

Arms Control and Disarmament Research Unit

Annex

Responses to the BTWC Green Paper

1. Strengthening the Biological Weapons Convention Review Conference Paper Number 6 Return to Geneva: The United Kingdom Green Paper June 2002 Series Editors Graham S Pearson and Malcolm R Dando, University of Bradford (and Strengthening the Biological Weapons Convention Review Conference Paper Number 7 Return to Geneva: A Comprehensive List of Measures, August 2002).

2. Strengthening the biological and toxin weapons convention: countering the threat from biological weapons, Dr Vivienne Nathanson, British Medical Association 6 July 2002.

3. Daryl G Kimball, Executive Director, Arms Control Association, Washington DC, 22 July 2002.

4. FCO Green Paper: Strengthening the Biological and Toxin Weapons Convention Professor David King, Chief Scientific Advisor, Office of Science and Technology, 2 August 2002.

5. Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Dr Jim Neilson, Head of Biological Agents Policy, Health and Safety Executive, 7 August 2002.

6. Federation of American Scientists Working Group on Biological Weapons Comments on the UK Green Paper "Strengthening the BWC: countering the Threat from Biological Weapons", 13 August 2002.

7. Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Comments from Gene Watch UK, 16 August 2002.

8. Strengthening the Biological and Toxin Weapons Convention: countering the threat from Biological Weapons Cm 5484 April 2002 Response of the Mountbatten Centre for International Studies University of Southampton, 27 August 2002.

9. Nicholas Sims, Department of International Relations, London School of Economics, Response to UK Green Paper of 29 April 2002, 29 August 2002.

10. VERTIC's response to the UK Green Paper Strengthening the Biological and Toxin Weapons Convention: countering the threat from Biological Weapons, 3 September 2002.

11. Professor Julian Perry Robinson, Science Policy Research Unit, University of Sussex, Comments on FCO Green Paper about the BWC, 12 September 2002.

12. Dr Susan Wright, Research Scientist, Institute for Research on Women and Gender, University of Michigan Comment on "Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons, Cmnd 5484 (April 2002).

13. The Royal Society Submission to the Foreign and Commonwealth Office Green Paper on Strengthening the Biological and Toxin Weapons Convention, Policy Document 25/02, September 2002.

14. Strengthening the Biological and Toxin Weapons Convention: Countering the threat from Biological Weapons. Response from the BioIndustry Association (BIA) 17 September 2002.

15. Dr Philip Wright, Director of Science and Technology, The Association of the British Pharmaceutical Industry, 25 September 2002.

[58] Science Policy Research Unit, University of Sussex.

3. Note on Overseas Science Students in the UK, Including Information on the Take-up of the Voluntary Monitoring Scheme (QQ28–29 and 50)

The latest figures available for the academic year 2000–01 indicate that there were 12,565 postgraduate students from non-EU countries in the UK. In implementing the Voluntary Vetting Scheme, we divide Universities and other institutions of higher education into categories, based on our assessment of the value of their research to potential proliferating states. In the category of highest concern, 100 per cent of institutions participate in the Scheme, together with some 70 per cent of institutions in the category of medium concern and 85 per cent in the category of low concern. The FCO is in regular touch with these institutions to encourage increased take-up.

5. Note on Whether the Jurisdiction of the International Criminal Court Would Cover the Use of BW by Iraq (QQ86–88)

1. The use of biological weapons in not specifically a crime under the ICC Statute at present. However their use could amount to a crime under the ICC Statute depending on the circumstances. For example:

— in the context of an international armed conflict, intentionally directing a biological weapons attack against civilians could constitute a war crime (Article 8(b)(i)); and

— a widespread or systematic attack directed against a civilian population using biological weapons could amount to a crime against humanity (Article 7).

2. Even if a particular use of biological weapons fell within the scope of crimes covered by the ICC Statute, the Court world only have jurisdiction if:

(a) the matter was referred to it by the Secretary Council;

(b) the conduct in question took place within the territory of a State party;

(c) the perpetrator is a national of a State party; or

(d) the perpetrator is a national of State which, although not being a party to the Statute, agrees on an *ad hoc* basis to the Court having jurisdiction.

3. Iraq is not a party to the ICC Statute. Therefore, unless the Security Council made a referral, the Court would only have jurisdiction over a biological weapons attack by Iraq if the attack had taken place in the territory of a State Party or if Iraq consented to such jurisdiction.

4. As for jurisdiction over a biological weapons attack by individuals not linked to any State, terrorism is not itself a crime under the Statute. Given the difficulty in arguing that such an attack would have taken place in the context of an armed conflict, it is hard to see how such conduct could fall within the scope of war crimes under the ICC Statute. Moreover, although crimes against humanity can take place outside of an armed conflict, they must be part of a systematic attack furthering State or organisational policy. Thus it may be difficult to establish that isolated acts of terrorism constitute crimes against humanity under the ICC Statute. If a particular terrorist act did fall within the crimes set out in the Statute, again the Court would only have jurisdiction if one of the four grounds set out in paragraph two was satisfied.

6. Note on transposition of Biological and Toxin Weapons Convention (BTWC) into UK Law

Questionnaire: BTWC and Related Legislation

State: **UNITED KINGDOM**
Date: **30 AUGUST 2002**

UK NOTES:

1. In some cases, equivalent legislation not stated above is enacted for Northern Ireland, overseas and dependent territories.
2. Penal provisions are only stated on the first mention of legislation.

1	2 *Activity*	3 *Title/Source of Legislation in force or planned*	4 *Penal provisions in force or planned*	5 *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
BTWC				
1	Implementation of BTWC Article I in legislation.	Article I is not specified in any UK legislation.		
2	Use of BTWC non-attributed Article I language in legislation.	1. Unattributed language of both Article I clauses is used in Biological Weapons Act 1974. 2. Transfers of biological agents and toxins other than for purposes permitted by Article I first clause are prohibited by Anti-terrorism, Crime and Security Act 2001 (in Part 7).	1. Yes 2. Yes	2. Covers extraterritorial activities, hoaxes, and threats of use.
3	Definition of biological weapons.	No definition.		
4	Inclusion of biological agents and toxins in weapons definition.	(No weapons definition.)		
5	Inclusion of means of delivery in definition.	(No weapons definition.)		
6	Development of biological weapons.	1. Unattributed language of Article I is used in Biological Weapons Act 1974. 2. Development of chemical weapons based on toxins is prohibited under the Chemical Weapons Act 1996, which implements the provisions of the Chemical Weapons Convention (Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction).	2. Yes	
7	Production of biological weapons.	1. Unattributed language of Article I is used in Biological Weapons Act 1974. 2. Production of chemical weapons including those based on toxins is prohibited under the Chemical Weapons Act 1996, which implements the provisions of the Chemical Weapons Convention.		See above # 2.

[Continued

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
8	Acquisition of biological weapons.	1. Unattributed language of Article I is used in Biological Weapons Act 1974. 2. Acquisition of chemical weapons including those based on toxins is prohibited under the Chemical Weapons Act 1996, which implements the provisions of the Chemical Weapons Convention.		See above # 2.
9	Transfer of biological agents for weapons, or actual weapons in own territory, or abroad.	1. Anti-terrorism, Crime and Security Act 2001 (in Part 7) extends the 1974 Biological Weapons Act to include transfers (domestic or export) of biological agents and toxins for which there is no permitted purpose. 2. Transfer of chemical weapons including those based on toxins is prohibited under the Chemical Weapons Act 1996, which implements the provisions of the Chemical Weapons Convention.		See above # 2.
10	Exercise actual control over biological weapons.	1. Possession of weapons is illegal under Biological Weapons Act 1974. 2. Anti-terrorism, Crime and Security Act 2001 (in Part 7) prohibits extra-territorial acts of UK citizens in development or production of BW or aiding, abetting, counselling etc of foreign procurement of biological agents or toxins or biological weapons etc as prohibited in the unattributed Article I language used in Biological Weapons Act 1974. 3. Possession of chemical weapons including those based on toxins is prohibited under the Chemical Weapons Act 1996, which implements the provisions of the Chemical Weapons Convention.		See above # 2.
11	Use of biological weapons.	1. Implication from prohibition of possession in Biological Weapons Act 1974, and from prohibition of extra-territorial activities in the Anti-terrorism, Crime and Security Act 2001. 2. Section 113 of the Anti-terrorism, Crime and Security Act 2001 prohibits use of noxious substances to cause harm or to intimidate. "Substance" here includes any biological agent and any other natural or artificial substance. 3. Use of chemical weapons including those based on toxins is prohibited under the Chemical Weapons Act 1996, which implements the provisions of the Chemical Weapons Convention.		
12	Assistance to others (individuals, groups, states) for BW acquisition or any other BW activity in own territory or abroad.	Yes. See above # 10.		See above # 2.

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
EXPORT CONTROLS				
13	Export of biological agents* and toxins.	1. Council Regulation (EC) 1334/2000, as amended, implementing a Community-wide regime for the control of exports of dual use CB related items and technology. 2. The Export of Good (Control) Order 1994, as amended. Military List 7 covers the export of biological agents adapted for use in war. Also, the General Technology Note applies. 3. The Dual-use Items (Export Control) Regulations 2000, as amended, includes national controls for two vaccines. 4. The Plant Health (Great Britain) Order 1993 covers exports of specified plant pathogens in as much as it restricts their movement and requires that the Plant Health authority be notified of any proposed movement, including an export, and of the receipt of a letter of authority to import from an intended overseas recipient.	1. Yes 2. Yes 3. Yes 4. Yes	
14	List of biological agents* and toxins for export control.	Yes. See above # 13, items 1, 3, 4.		
15	Export of dual-use biological equipment.	Council Regulation (EC) 1334/2000, as amended, implementing a Community-wide regime for the control of exports of dual use CB related items and technology.		
16	List of dual-use biological equipment for export control.	Yes. See above # 15.		
17	Export of technology related to biological agents*, toxins and equipment.	See above # 15.		
18	Export licence for biological agents*, toxins, equipment and technology.	Yes. See above # 15.		
19	Enduser certificate for biological agents*, toxins, equipment and technology.	Yes, a national administrative requirement.		
20	Catch all clause for exports of biological materials and equipment.	Yes, see above # 15.		
21	Dedicated national authority for export controls or government department(s)/ agencies responsible for policy on or implementation of export controls.	1. Council Regulation (EC) 1334/2000, as amended, is implemented in the UK by the Department of Trade and Industry, taking advice from other government departments on a case by case basis. 2. The main government departments involved in setting policy export controls for pathogens and toxins are the Department of Trade and Industry, the Ministry of Defence, and the Foreign and Commonwealth Office.		

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2 Activity*	*3 Title/Source of Legislation in force or planned*	*4 Penal provisions in force or planned*	*5 Comments (ie extraterritorial application or reporting to government or licensing required or others)*
HANDLING OF AGENTS AND TOXINS				
22	Import of biological agents* and toxins.	1. Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community, of 8 May 2000, Annex I and II. These provisions are implemented in the UK in the Plant Health (Great Britain) Order 1993, as amended. Council Directive 95/44/EC covers requirements for import of organisms for trial or scientific purposes.		
		2. The Importation of Animal Pathogens Order 1980, as amended, prohibits imports of animal pathogens and carriers from countries outside the EU except under licence.	2. Yes	
		3. Various legislation to prevent the importation of disease-causing agents in animals and products of animal origin.	4. Yes	
		4. The Import of Goods (Control) Order 1954, as amended, covers imports of saxitoxin and ricin preparations of specified CAS numbers.		
23	List of biological agents* and toxins for import control.	1. Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community, of 8 May 2000, Annex I and II. These provisions are enacted in the UK in the Plant Health (Great Britain) Order 1993. Council Directive 95/44/ (EC) requires the provision of a list of organisms imported.	Yes	
		2. The Importation of Animal Pathogens Order 1980, as amended, does not list disease agents but defines animal pathogens and carriers which may cause disease in animals and poultry or carry or transmit such a pathogen.		
		3. See above # 22, point 4.		
24	Transhipment through national territory of human pathogens.	No regulatory impact as long as item is appropriately packed and kept in packaging during transhipment.		
25	Transhipment through national territory of animal/zoonotic pathogens.	See above # 24.		
26	Transhipment through national territory of plant pathogens.	See above # 23.		
27	Transhipment through national territory of dual-use equipment.	No.		

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
28	Domestic transfers of human pathogens.	The Control of Substances Hazardous to Health Regulations, for health and safety purposes, places duties on employers transferring Risk Group IV biological agents.		
29	Domestic transfers of animal/zoonotic pathogens.	The Specified Animal Pathogens Order 1998 and the Importation of Animal Pathogens Order 1980, as amended, cover the transfer of animal pathogens by means of a licensing system but if the material originates from domestic sources there is only control when there is a specified pathogen.	Yes for both.	
30	Domestic transfers of plant pathogens.	The Plant Health (Great Britain) Order 1993 licences the handling and the movement of plant pathogens between licensees.		
31	Domestic transfers of toxins.	1. The Importation of Animal Pathogens Order 1980, as amended, covers the transfer of derivatives of animal pathogens by means of a licensing system. 2. Licences issued for Schedule 1 chemicals under the Chemical Weapons Act 1996 cover the domestic transfer of saxitoxin and ricin under specified CAS numbers.		
32	Packaging requirements for transfer of biological agents* and toxins.	1. European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), of 30 September 1957. 2. Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail, of 23 July 1996. 3. International Maritime Dangerous Goods Code. 4. ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air. 5. IATA Dangerous Goods Regulations. 6. UPC Universal Postal Convention Article RE 2401. 7. The Carriage of Dangerous Goods (Classification, Packaging and Labelling) Regulations 1996.		2. Class 6.2: Infectious materials, #s 2.2.62, 4.1.8, 5.5.1. 4. Chapter 2.6: Class 6 Toxic and infectious materials.
33	Biosafety requirements for transfer of human pathogens.	1. See above # 32. 2. Council Directive 90/679/EEC on the protection of workers from risks related to exposure to biological agents at work, of 26 November 1990, amended by Council 93/88/EEC and Commission 95/30/EC, 97/59/EC, 97/65/EC, codified by 2000/54/EC.		
34	Biosafety requirements for transfer of animal/ zoonotic pathogens.	Yes. See above # 32.		
35	Biosafety requirements for transfer of plant pathogens.	Yes. See above # 32.		

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
36	Biosafety requirements for transfer of toxins.	Yes. See above # 32.		2. Class 6.1: Toxic materials. 4. Chapter 2.6: Class 6 Toxic and infectious materials.
37	List of biological agents* and toxins for domestic transfers*.	No list. Packaging requirements for various types of goods are set out in various legislation see above # 32.		
38	Regulations covering medical/veterinary/etc diagnostic work with biological agents* and toxins.	1. The Control of Substances Hazardous to Health Regulations. 2. The Plant Health (Great Britain) Order 1993 and Council Directive 95/44(EC). 3. The Specified Animal Pathogens Order 1998 and the Importation of Animal Pathogens Order 1980, as amended. 4. Council Directive 90/679/EEC on the protection of workers from risks related to exposure to biological agents at work, of 26 November 1990, amended by Council Directive 93/88/EEC and Commission 95/30/EC, 97/59/EC, 97/65/EC, codified by 2000/54/EC. 5. Council Regulation (EEC) No 2039/93 of 26 July 1993 laying down Community procedures for the authorisation and supervision of medicinal products for human and veterinary use and establishing a European Agency for the Evaluation of Medicinal Products. 6. Council Directive 2001/82/EC of 6 November 2001 on the Community code relating to veterinary medicinal products. 7. Council Directive 2001/83/EC of 23 October 2001 on the Community code relating to medicinal products for human use. 8. The Medicines Act 1968 and secondary legislation made under it.		
39	Regulations covering other work with biological agents* and toxins (industry, science, biodefence, etc).	1. See above # 38. 2. The Environmental Protection Act 1990 covers the disposal of waste.		
40	Classification of human pathogens to risk groups.	1. The Control of Substances Hazardous to Health Regulations. 2. Council Directive 90/679/EEC on the protection of workers from risks related to exposure to biological agents at work, of 26 November 1990, amended by Council 93/88/EEC and Commission 95/30/EC, 97/59/EC, 97/65/EC, codified by 2000/54/EC. 3. The Genetically Modified Organisms (Contained use) Regulations 2000.		

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
41	Classification of animal/zoonotic pathogens to risk groups.	No list published by government.		
42	Classification of plant pathogens to risk groups.	No.		
43	Biosafety standards for handling of/work with biological agents*.	1. The Control of Substances Hazardous to Health Regulations. 2. Council Directive 90/679/EEC on the protection of workers from risks related to exposure to biological agents at work, of 26 November 1990, amended by Council 93/88/EEC and Commission 95/30/EC, 97/59/EC, 97/65/EC, codified by 2000/54/EC. 3. The Specified Animal Pathogens Order 1998 and the Importation of Animal Pathogens Order 1980, as amended. 4. The provisions of Council Directive 95/44/EC as implemented in the Plant Health (Great Britain) Order 1993.		
44	Physical security of rooms for handling of/ work with biological agents*.	1. See above # 43, but as regards animal pathogens only the Specified Animal Pathogens Order 1998. 2. The Anti-terrorism, Crime and Security Act 2001 part 7.		
45	Government scrutiny of personnel handling/ work with biological agents* for security reasons.	The Anti-terrorism, Crime and Security Act 2001, part 7.		
46	Government/state scrutiny of personnel handling/work with biological agents* for professional competence reasons.	Yes. See above # 43, but not for work with animal pathogens.		
47	Government/state/control/inspection of handling of/work with biological agents*.	1. The Health and Safety Executive inspects work with human pathogens and genetically modified organisms. 2. The Department for Environment, Food and Rural Affairs inspects facilities in England wishing to work with specified animal pathogens and in England and Wales wishing to work with plant pathogens.		Implemented in Scotland under the Scottish Executive. Implemented in Wales under the National Assembly of Wales.
48	Site responsible officer for control of handling of/work with biological agents*.	Yes. See above # 43, but as regards animal pathogens only the Specified Animal Pathogens Order 1998.		
49	National authority for control of handling of/ work with biological agents*.	Yes. See above # 47.		

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* Activity	*3* Title/Source of Legislation in force or planned	*4* Penal provisions in force or planned	*5* Comments (ie extraterritorial application or reporting to government or licensing required or others)
GENETIC WORK				
50	Genetic engineering activities/work with biological agents*.	1. The provisions of Council Directive 90/219/EEC on the contained use of genetically modified micro-organisms, of 23 April 1990, last amended by Directive 98/81/EC, are implemented in the Genetically Modified Organisms (Contained Use) Regulations 2000. 2. Deliberate release—until October 2002. The provisions of Council Directive 90/220/EEC on the deliberate release into the environment of genetically modified organisms, of 23 April 1990, last amended by Directive 97/35/EC, are implemented by part IV of the Environmental Protection Act 1990 and the Genetically Modified Organisms (Deliberate Release) Regulations 1992, as amended 1995 and 1997. 3. Deliberate release—from October 2002. The provisions of the Directive of the European Parliament and the Council 2001/18/EC on the deliberate release into the environment of genetically modified organisms, of 12 March 2001, are implemented by part IV of the Environmental Protection Act 1990 and the Genetically Modified Organisms (Deliberate Release) (England) Regulations 2002. 4. The Plant Health (Great Britain) Order 1993 covers genetically modified plant pathogens.		
51	Licensing of genetic engineering work.	For contained use work, see above # 50 item 1. For deliberate release, see above # 50 item 2 and 3.		
52	Professional competence for genetic engineering activities/work.	For contained use work, see above # 50 item 1. For part B (small scale) deliberate release, see above # 50 item 2 and 3.		
53	Classification of genetically modified biological agents to biosafety risk groups*.	The provisions of Council Directive 90/219/EEC on the contained use of genetically modified micro-organisms, of 23 April 1990, last amended by Directive 98/81/EC, are implemented in the Genetically Modified Organisms (Contained Use) Regulations 2000. These classify activities involving genetic engineering work with genetically modified micro-organisms in the different Risk Groups.		
54	Biosafety standards for genetic engineering activities/work (including access control, etc).	The provisions of Council Directive 90/219/EEC on the contained use of genetically modified micro-organisms, of 23 April 1990, last amended by Directive 98/81/EC, are implemented in the Genetically Modified Organisms (Contained Use) Regulations 2000.		
55	Government/state control of genetic engineering activities/work and biosafety standards.	1. The Health and Safety Executive inspects facilities for contained use work with genetically modified organisms including animal pathogens. 2. The Department of the Environment, Food and Rural Affairs inspects facilities for contained use work with plants and plant pathogens.		Implemented in Scotland under the Scottish Executive. Implemented in Wales under the National Assembly of Wales.

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
56	Site responsible officer control of genetic engineering activities/work and biosafety standards.	For contained use work, see above # 50 item 1. For deliberate release, see above # 50 item 2 and 3.		
57	Government publication of proposed locations for genetic engineering work.	1. A public register of premises and activities involving genetic engineering work in containment is held by the Health and Safety Executive, consistent with the operation of the Anti-terrorism, Crime and Security Act 2001. 2. A public register of approved applications for deliberate release of genetically modified organisms is held by the Department of the Environment, Food and Rural Affairs and is available on their web site.		
58	Dedicated national authority for genetic engineering activities/work or government department/agencies responsible for policy on or implementation of regulations concerning genetic engineering work.	1. The Health and Safety Executive is responsible for work on contained use of genetically modified organisms. 2. The Department of the Environment, Food and Rural Affairs is responsible for the control of environmental risks caused by genetically modified animals, plants or micro-organisms, for the control of experimental release and marketing of genetically modified organisms, and for the agricultural implications of genetically modified organisms. 3. The Food Standards Agency is responsible for the safety and labelling of gentically modified food. 4. The Department of Health is responsible for general human health and food safety aspects of genetically modified organisms. 5. The Home Office regulates the use of protected animals including those that have been genetically modified, for experimental or other scientific purposes.		Implemented in Scotland under the Scottish Executive. Implemented in Wales under the National Assembly of Wales.
59	Independent body for oversight of/advise on genetic engineering activities/work.	1. The Advisory Committee on Genetic Modification. 2. The Advisory Committee on Release to the Environment.		
OTHER ISSUES				
60	Physical requirements to safeguard samples of biological material on transfers*.	See above # 32.		
61	National reporting system for human infectious diseases (including statement of responsible bodies).	1. A number of major diseases are notifiable to the local health authority. The Public Health Laboratory Service operate a comprehensive surveillance system for a wide range of infectious diseases through the Communicable Disease Surveillance Centre. 2. Some work related accidents, diseases and dangerous occurrences must be reported under Health and Safety "Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995".		

Questionnaire: BTWC and Related Legislation *(Continued)*

1	*2* *Activity*	*3* *Title/Source of Legislation in force or planned*	*4* *Penal provisions in force or planned*	*5* *Comments (ie extraterritorial application or reporting to government or licensing required or others)*
62	National reporting system for animal infectious diseases (including statement of responsible bodies).	1. Major economic diseases (OIE list A) are notifiable to the State Veterinary Service of the Department of the Environment, Food and Rural Affairs. 2. All animals that are slaughtered for human consumption are given ante-mortem and post-mortem inspections by Official Veterinary Surgeons of the Meat Hygiene Service, an inspectorate of the Food Standards Agency, who report suspicions of notifiable diseases to the State Veterinary Service.		
63	National reporting system for plant infectious diseases (including statement of responsible bodies).	1. Article 20 of the Plant Health (Great Britain) Order 1993 and the Plant Health Order (Northern Ireland) 1993 requires notification of the presence or suspected presence of plant pests listed in Schedule 6. 2. Member State report to the European Commission and other member States under Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community, of 8 May 2000, Article 16.		
64	Reporting of human infectious diseases to WHO.	Mandatory reporting of yellow fever, plague and cholera.		
65	Reporting of animal infectious diseases to OIE.	Yes, in respect of OIE list A diseases.		
66	Reporting of plant infectious diseases to FAO.	No mandatory reporting to FAO, but a requirement to report outbreaks under International Standard No 17 (achieved by publishing on a web site plus mandatory reporting to European and Mediterranean Plant Protection Organisation (EPPO), which publishes national contributions).		
67	Criminalisation of terrorist activities related to biological agents/biological weapons including hoaxes.	Anti-terrorism Crime and Security Act 2001.		
68	Exemption of any agency/organisation/ personnel from any above quoted law/ regulation.	Exemption of crown servants in some legislation.		
69	Ratification of Geneva Protocol of 1925.	Ratified 9 April 1930.		
70	Reservations to Geneva Protocol of 1925 on BW retaliation.	In the process of withdrawal.		
71	Indicate any area for which is no legislation but existing or planned advisory guidelines in any area above.			

* To include provisions for human, animal and plant infectious agents.

7. Of those proposed at the fifth review conference, which new or amended Confidence Building Measures have most potential to increase transparency among states parties in future?

Declaration of veterinary vaccine facilities would have the most potential to increase transparency among States Parties. Such faculties have an inherent capability to produce infectious agents and could be missed for offensive BW purposes. Veterinary vaccine facilities have been used in the past by proliferators as part of their BW programmes.

8. How workable are the proposals developed by academics to prohibit biological and chemical weapons under international law? Which such proposals have the government considered? Would the government consider their adoption?

The Harvard-Sussex Program on CBW Armament and Limitation has developed a draft Convention for the criminalisation of CBW activities at the individual level. This draft builds on existing legal precedents and international agreements and has been considered by officials since it was first launched in the late 1990s. It was one of the measures especially identified in the Green Paper as a possible option and it remains one that the government would be ready to see taken forward as part of international efforts to counter the threat posed by CBW proliferation. We are also aware of a similar but more ambitious proposal developed by Professor Barry Kellman, a US academic from DePaul University College of Law. However, this proposal contains some concepts that are problematic, which make it less attractive.

Foreign and Commonwealth Office

18 November 2002

Further memorandum from the Foreign and Commonwealth Office

BIOLOGICAL AND TOXIN WEAPONS CONVENTION FIFTH REVIEW CONFERENCE

Letter to the Parliamentary Relations and Devolution Department, Foreign and Commonwealth Office, from the Committee Specialist Foreign Affairs Committee

As part of its Inquiry into the Green Paper on Strengthening the Biological and Toxin Weapons Convention, the Foreign Affairs Committee would like to receive a short report from the FCO on the outcomes of the BTWC resumed Fifth Review Conference. A summary of the measures agreed, and a brief assessment of next steps towards strengthening the Convention would be most helpful. The Committee would also appreciate a brief summary of the approach taken by the United States at the Conference.

It would be very helpful indeed if I could receive your response to this request by 19 November.

Committee Specialist,
Foreign Affairs Committee,

7 November 2002

Letter to the Committee Specialist from the Parliamentary Relations and Devolution Department, Foreign and Commonwealth Office

In your letter of 7 November, you requested information on the outcome of the BTWC 5th Review Conference for the Foreign Affairs Committee inquiry into the Green Paper on the Biological and Toxin Weapons Convention (BTWC).

On 15 November, the 5th Review Conference reached unanimous agreement on a three year programme of work leading up to the 6th Review Conference in 2006. This will consist of annual meetings of technical experts and representatives of the States Parties to consider the following measures:

In 2003:

i. the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;

ii. national mechanisms to establish and maintain the security and oversight of a pathogenic micro-organisms and toxins;

In 2004:

iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;

iv. strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animal and plants;

In 2005:

v. the content, promulgation, adoption and enforcement of codes of conduct for scientists.

The meetings of technical experts will be of two weeks' duration and will prepare factual reports describing their work. These will then be considered by a later one-week meeting of States Parties. Any conclusions or results are to be reached by consensus. The Sixth Review Conference will consider the work of these meetings and decide on any further action.

This compromise proposal was put to the Conference by the Conference Chairman (Ambassador Toth, Hungary). In his judgement, based on his consultations with States Parties over the past year, it represented the only package that was likely to be capable of achieving consensus. The United Kingdom strongly supported the Chairman's proposals, which incorporated a number of the ideas contained in the Government's Green Paper. The United States fully endorsed the Chairman's proposals and played an active part in securing the successful outcome.

Since the suspension of the Review Conference in December 2001, the United Kingdom had worked hard in trying to establish a basis for compromise, which led to this unanimous agreement on a programme of work to strengthen the Convention. This represents a significant achievement, given the position we were in a year ago.

I enclose a copy of the full text of the draft decision approved by the Conference, setting out the work programme with details of the rotating chairmanship that will operate in successive years.

Parliamentary Relations and Devolution Department
Foreign and Commonwealth Office

22 November 2002

FIFTH REVIEW CONFERENCE OF THE STATES PARTIES TO THE CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION AND STOCKPILING OF BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN WEAPONS AND ON THEIR DESTRUCTION

Resumed Session, Geneva, 11–22 November 2002

Draft Decision of the Fifth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) Weapons and on Their Destruction

1. The Conference decides to hold three annual meetings of the States Parties of one week duration each year commencing in 2003 until the Sixth Review Conference, to be held not later than the end of 2006, to discuss, and promote common understanding and effective action on:

i. the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;

ii. national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;

iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;

iv. strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animal and plants; and

v. the content, promulgation and adoption of codes of conduct for scientists.

2. All meetings, both of experts and of States Parties, will reach any conclusions or results by consensus.

3. Each meeting of the States Parties will be prepared by a two week meeting of experts. The topics for consideration at each annual meeting of States Parties will be as follows: items i and ii will be considered in 2003; items iii and iv in 2004; item v in 2005. The first meeting will be chaired by a representative of the Eastern Group, the second by a representative of the Group of the Group of Non-Aligned and Other States, and the third by a representative of the Western Group.

4. The meetings of experts will prepare factual reports describing their work.

5. The Sixth Review Conference will consider the work of these meetings and decide on any further action.

6 November 2002

APPENDICES TO THE MINUTES OF EVIDENCE

APPENDIX 1

Memorandum from MEDACT and the Oxford Research Group

RESPONSE TO THE UK GOVERNMENT GREEN PAPER OF APRIL 2002; "STRENGTHENING THE BIOLOGICAL AND TOXIN WEAPONS CONVENTION"

1. We broadly welcome the initiative of the UK Government which is expressed in the Green Paper of April 2002 *"Strengthening the Biological and Toxin Weapons Convention"*. In particular, we support the stated need to re-convene the Fifth Review Conference, and not to follow the proposal of the Government of the United States of America to wind up the Ad Hoc Group, so that the work of the Conference can resume on 11 November 2002.

2. Although it may be difficult to implement a Verification Protocol under the current American Administration, we feel it essential to encourage and maintain continued active participation from the US Government in order to extend the international co-operative measures, and we remain convinced that the ultimate objective must be the establishment of a Verification Protocol as an integral part of the BTWC and, as such, a recognised component of International Humanitarian Law. An enforceable verification protocol for the BTWC is particularly essential to counteract the tendency towards even greater secrecy in work on dangerous pathogens. In particular, it is now possible that new techniques in biotechnology could be used to make existing pathogens more dangerous, for example, by making them more resistant to antibiotics or even by creating new pathogens from currently non-pathogenic organisms.

3. The possible measures outlined in paragraph 47 are promising, and we welcome the reference to President Bush's statement of 1 November 2001 which supports the strengthening of the international regime against Biological Weapons by encouraging acceptance of an effective UN procedure.

4. One area which we feel needs further clarification is the approach to the "Third Pillar"—deterring use. Although paragraph 47g clearly supports the criminalisation of violators of the BTWC and CWC, which would presumably extend to any clandestine activities within the UK, it is not clear how deterrence would actually be applied to external agencies or nations. We would not approve, for example, the military use of nuclear or even conventional Weapons of Mass Destruction. In order to strengthen effective national legislation on the export of agents, equipment and materials potentially useful for offensive BW programmes etc (paragraph 48) we would rather advocate, for instance, the effective use of targeted trade sanctions, as well as the strict enforcement of legal liability for any state or trans-national commercial enterprise trading with and supplying potential or actual weapons grade materials to any state sponsoring the development of Chemical or Biological Weapons.

5. We understand the difficulties resulting from "dual use". Any ambiguities in international trade of materials capable of supporting research for offensive, defensive or purely medical programmes should be subject to effective international regulatory authorities, with powers to prosecute offenders, as well as effective and stringent application by each exporting nation of a system of export licensing.

6. We see these as part of the programme for building up the Confidence Building Measures referred to in paragraph 47e. Although it is necessary to address the concerns of the US Administration regarding the draft protocol from the AHG, we feel that it is essential to maintain as much of those proposals as possible without compromising them in the interests of the US concerns. In particular, the fundamental reasons for these concerns need to be ascertained and clarified. All parties should participate actively in the CBMs described in paragraph 47e. Indeed, we see the advancements of CBMs as an important element in strengthening international compliance with the BTWC.

7. We also understand and support the efforts of governments to ensure the protection of their own citizens by programmes, for example, of prophylactic vaccination. We are aware that some nations—particularly the former USSR—continued quite cynically to maintain stocks of living smallpox virus; and that such stocks may have been passed undeclared to other nations. We would, however, urge extreme caution in the implementation of any programmes of mass vaccination, particularly when live vaccines are used. This is because of the inevitable adverse side effects, particularly for immuno-compromised persons, and also because of the implied message for the public which could create unjustified panic. We are aware that the UK Department of Health is re-organising the Public Health Laboratory Services, and emphasise the need to use that re-organisation to take the opportunity to strengthen the system of surveillance of infectious disease at the newly created National Infection Control and Health Protection Agency.

MEDACT
The Oxford Research Group

21 October 2002

APPENDIX 2

Memorandum from Professor J P Perry Robinson

Here is a response to the invitation contained in paragraphs 11 and 58 of the FCO Green Paper, *Strengthening the Biological and Toxin Weapons Convention*. It comes to you from an interested individual who also heads a university research programme involving the subject-area of the Green Paper.

1. The problem of biological weapons is not going to go away quickly, however ingenious the arms-control solutions proposed. In biotechnology today we are seeing a great surge of commercial and scientific venture that promises to yield—is already yielding—much benefit at individual, corporate and societal levels. The surge will continue to gather momentum as scientists' understanding of life processes continues to accelerate. That biotechnology has maleficent as well as beneficent potential is commonly recognised, and there is astute reflection in the Green Paper on the dual applicability of some biotechnology both to the common good and to threatening new weapons. The FCO is not alone in perceiving this duality to lie at the heart of the problem today. Yet the disdain evident in the United States for internationally negotiated measures of dual-use control suggests that some policy-makers see dual use as a relatively trivial consideration, and not one that need constrain the great upward surge of biotechnological opportunity. Is that tunnel vision on their part, or expedient recognition that the interests arrayed against multilateral controls are, for the moment, overwhelming? Or is it simply that the general economic and political context of the surge is a climate that favours promotion, not constraint? Whatever it is, remedies cannot be expected soon, if, as they surely must, they are to involve the United States in multilateral co-operative effort.

2. In the meanwhile, as paragraph 45 of the Green Paper rightly says, the potential threats presented by biological weapons will continue to expand, and have now done so to the point where they reach beyond the national security, thus becoming a supranational or global problem that requires, ever more urgently, a global solution. The forward strategy thus has to be one of not allowing the situation to get worse while still keeping alive the prospect of advancing the global solution. For the resumed Fifth BWC Review Conference, such a holding strategy would translate into a policy of promoting reaffirmation of the norm embodied in the BWC and of instituting processes that would serve both to make that reaffirmation continuous and to facilitate multilateral negotiation when the time for it becomes more propitious. That is exactly what the concluding *Way Forward* section of the Green Paper seems to contemplate. Of course, if even that modest approach were to inspire active US opposition at the resumed review conference, then, provided there were no distance between the UK and its EU allies on the issue, the time would have come for departing from decision by consensus, which is one of the "traditional trappings of arms control", to decision by vote.

3. The three specific types of *Way Forward* measure proposed for discussion would, as a package, advance the holding strategy well: (a) an annual BWC review conducted by the states parties that is guided by non-open-ended expert groups; (b) greater involvement of non-governmental organisations, such as professional and trade associations, for example in developing codes of ethical conduct; and (c) an annual national conference on the health of the BWC that has both governmental and non-governmental participation. That triad of measures, however, seems rather paltry in comparison with the hopes and expectations evident in the Rolling Text of the projected BWC Protocol. It also stands in some contrast to the five specific areas "for immediate action" specified in paragraph 54 of the Green Paper. A stimulus to thinking about possible additional measures is the four-pillar concept used in paragraph seven of the Green Paper to explain UK policy for CBW risk-management. The concept sets arms control alongside preventing supply, deterring use and defending against use as a pillar of that policy. It thereby postulates both that arms-control measures cannot suffice on their own and that they are a necessary adjunct to the other three pillars. The suggestion is, in other words, that an interdependency exists between arms control and other elements in a diverse array of available countermeasures. It is thus not so much that the BWC is one of several free-standing columns supporting the policy, but more that the BWC can lend strength to, and derive strength from, that overall array. This is surely correct. A way further forward, then, is to identify possible mechanisms for such interdependency and seek enhancement of them.

4. One might, for example, locate a part of the interdependency in the legitimation that the BWC and its underlying norm provide for measures not otherwise recognised in international law, such as the harmonisation of export controls that the Australia Group promotes, or even covert operations to disrupt the supply of possible BW armament programmes. Whether BWC-compliance-monitoring procedures, as have been sought through the BWC Protocol, would strengthen such an interdependence is a moot point, but certainly the interdependence would be lost if the norm codified in the BWC were allowed to fade. So it is most important, as the Green Paper underlines, that there be reaffirmation of the norm.

5. The verification procedures that were being negotiated as part of the BWC Protocol would, unless negotiating compromises had rendered them altogether nugatory, have reduced the probability of clandestine BW armament. A direct interdependence would then have existed between the BWC and preventing supply. The verification procedures would have been focussed on lists of agents judged especially threatening. Among such agents, paragraph 21 of the Green Paper places particular stress on toxins and peptide bioregulators. All such substances are toxic chemicals within the meaning of the Chemical Weapons Convention, so an alternative route is open for bringing them under control and thus strengthening this interdependence: proposing that an additional schedule of chemicals be added to the CWC so as to establish a verification regime for particular toxins and peptides. No doubt the negotiation of such an amendment would encounter

obstacles similar to those that confronted the BWC Protocol; but the First CWC Review Conference takes place next April, providing opportunity for exploring the option further.

6. Then there is the interdependence between the BWC regime and deterrence of BW armament, including use of biological weapons. Strengthening it would be measures to remedy another deficiency of the current regime, namely its absence of provision for sanctions against violators. This presumably is why paragraph 54 of the Green Paper has included "criminalisation of violations of the Convention" among the "five specific areas for immediate action". Set out in the box in paragraph seven, are the three mechanisms that the UK believes "essential to deter CBW use". One mechanism is assuring any potential aggressor that "those at every level responsible for any breach of international law relating to the use of such weapons will be held personally accountable". In fact, unless some sort of criminalisation initiative is pressed forward, this deterrent sanction scarcely exists, for there is little international law whereby individuals—as opposed to states—can be held accountable for acts of BW armament or use. Such acts are not, for example, expressly among the war crimes that can be tried by the International Criminal Court. True, the BWC obliges its states parties to "take any necessary measures to prohibit and prevent" individuals within their jurisdictions undertaking activities prohibited to states under the Convention. This implies the enactment of penal legislation, so there already exists the basis for national criminalisation initiatives, although in fact rather few states have yet availed themselves of it. The deterrence mechanism, however, requires more than that. It needs an international criminalisation initiative, one that would endanger "those at every level responsible" the moment they set foot in countries other than their own. The proposed new international convention on criminalisation of CBW armament noted as a potential measure in paragraph 47(g) is designed to achieve this. It should be observed here that, in order to ensure that the proposed convention reaches "every level responsible", it is applicable to governmental officials, even to heads of state. Like the 1996 Chemical Weapons Act, which implements the Chemical Weapons Convention into UK law, but unlike the 1974 Biological Weapons Act even as amended by the 2001 Anti-terrorism, Crime and Security Act, the proposed convention denies Crown immunity.

7. The triad of *Way Forward* measures places emphasis on possible roles for non-governmental organisations. The NGO roles that are proposed for consideration are primarily at the national and regional levels. Should the Green Paper not also have envisaged roles at the international level, given its emphasis on international cooperative efforts to counter BW? There are several possibilities that HMG might judge worth supporting.

8. One such possibility lies within the international academic community where new capacity now exists for conducting soundly based policy-orientated research into core BWC problems (such as dual use). The new capacity has been brought into being by the *ad hoc* studies of different aspects of bioterrorism commissioned by EU bodies in the aftermath of the events of 11 September 2001. These studies have required the convening of EU-wide working parties of scientists, other academics and people from both industry and government—networks that will dissolve once the studies are done, thereupon dissipating a rare international resource that could be deployed in other efforts to strengthen the BWC. FCO support could enable such work to be carried forward. The work might proceed within the framework of, for example, the impending ESRC National Security Challenges programme, or possibly even under the auspices of an EU Council or Commission subsidiary, provided the framework favoured internationally networked research, especially in projects that could link American researchers into the work.

9. Taking shape under the stimulus of the threat to the BWC is a different sort of international NGO activity that is potentially also worthy of support. The principal NGOs that concern themselves with the BWC, based in countries such as Germany, South Africa, Switzerland, the UK and the USA, are discussing possible ways of coming together in order to concert their activities globally. The coalition is developing a programme that would combine global networking and publication, including publication of an annual state-of-the treaty report, so as to increase awareness of the BWC and to monitor its implementation by individual states parties, including implementation of its associated confidence-building measures. Two US charitable bodies have provided seed money for the project-definition that is currently in progress, which now seems likely to result in a launch of the project during the resumed Fifth BWC Review Conference. Additional backers are being sought. On the precedent, not least, of its financial support for a rather similar international NGO enterprise, Small Arms Survey, HMG might want to consider helping this one too.

10. My research programme and the people in it stand ready to contribute to the proposed annual meetings on the health of the BWC.

(Memorandum originally submitted to the FCO Non Proliferation Department)

J.P. Perry Robinson, Professional Fellow
SPRU, Science and Technology Policy Research, University of Sussex, Brighton

12 September 2002

APPENDIX 3

Memorandum from Verification Research, Training and Information Centre (VERTIC)

The Verification Research, Training and Information Centre (VERTIC), an independent non-governmental organisation, responded to the government's Green Paper on Strengthening the Biological and Toxin Weapons Convention on 3 September 2002. I attach a copy of that submission for your information. Since that time, however, the United States' opposition to new verification and compliance measures for the Convention has hardened further. Having brought about the collapse of the negotiations on a verification protocol in August 2001 and stymied the adoption of a final document by the November 2001 Review Conference, the US is clearly no longer even interested in pursuing the modest measures to replace the protocol proposed by President Bush (a number of which were replicated in the Green Paper). Moreover, it is clear from US talking points for a Western Group meeting in Geneva on 2 September that the US is now preparing to sabotage the resumed session of the Review Conference in November by seeking an immediate closure of the meeting. This would mean no further multilateral meetings on the BWC until the next scheduled Review Conference in 2006. Given the near global consensus that biological weapons are a serious, and probably growing, threat to international security, this situation is intolerable.

The UK delegation apparently intends to try to achieve a quick consensus at the resumed session on a future work programme on various BW issues. At the same time it apparently will join the US in attempting to head off a general debate, ostensibly out of fear that the Cubans and Iraqis will try to "politicise" the meeting by making accusations against the US. Conveniently, this would also avoid the UK having to take sides in a debate in which most states will criticize the US for its attempt to wreck the protocol and the review conference. It is impossible to imagine how both these two UK aims will be achieved, especially as the US has now made clear it will oppose any BW work between review conferences. The danger is that the UK will fall in line with the US push for closure by default. Yet the US cannot unilaterally impose its will on the conference, whether to abolish the Ad Hoc Group, end the review conference early or avoid a final document. Failing the achievement of consensus or a procedural trick by the chairman (such as gavelling closure through), a vote is the only way out of the likely deadlock. Although a vote would be unfortunate, it is likely to be less damaging to the BWC regime than a five year hiatus in multilateral discussions. If a vote is requested, the UK should support that call. If a vote is actually taken, the UK should vote against the ending of the Ad Hoc Group mandate and/or early closure of the conference and vote in favour of a final document that keeps the process alive with substantive discussions and preferably negotiations (with or without the US). Having been one of the most active proponents of a new BW verification regime, and being a treaty depositary with special responsibilities, the UK should resist US attempts to sabotage the multilateral track and not connive in them, whether deliberately or by default.

Trevor Findlay,
Executive Director
Verification Research

29 October 2002

STRENGTHENING THE BIOLOGICAL AND TOXIN WEAPONS CONVENTION: COUNTERING THE THREAT FROM BIOLOGICAL WEAPONS

1. VERTIC welcomes the Green Paper of April 2002 on *Strengthening the Biological and Toxin Weapons Convention: countering the threat from biological weapons*. The UK has been a driving force behind efforts to strengthen the treaty and it is commendable that the government is consulting a broad range of stakeholders on the best way forward. VERTIC especially welcomes the suggestion of annual meetings on the BW issue involving experts from the UK government and non-governmental communities.

2. The Green Paper is timely. The failure of the Ad Hoc Group of states parties in August 2001 to agree on a verification protocol and the inability of the Fifth Review Conference in December 2001 to agree on a Final Document have highlighted the need for urgent action to safeguard and strengthen the BWC.

3. While VERTIC considered that the draft BW protocol tabled by the Ad Hoc Group Chairman in April 2001 was in significant respects too weak, we share the analysis of the Green Paper that the so-called Composite Text was "a substantive improvement on the *status quo* represented by the Convention" and was worthy of adoption by states parties.

4. VERTIC remains convinced that an integrated, legally-binding multilateral verification regime implemented by a dedicated international organisation along the lines envisaged in the draft protocol (ideally with stronger transparency and compliance provisions) is indispensable to dealing with the threat of biological weapons. Such a regime should remain the vision that guides efforts to strengthen the treaty and should not be relegated to the dustbin of history just because a particular US administration opposes it and because other states with their own self-serving motives hide behind the US position.

5. The central weakness of the Green Paper, in VERTIC's view, is its failure to strongly reiterate previous UK support for a comprehensive, legally-binding multilateral verification regime. The close resemblance of the Green Paper's list of proposed measures to the US "alternative" proposals gives the impression that the

UK shares the US view of the future of the BW protocol. This would be a radical departure from previous UK policy: the UK should, in our view, strongly reiterate that policy.

6. Recognising the difficulties that stand in the way of further progress on the protocol at this stage, the Green Paper rightly proposes making progress on partial measures where possible. VERTIC supports all of them. We note, however, that without the framework of a global verification regime they are likely to be disconnected and, as a result, have less impact. Moreover, as the Green Paper itself recognises, the acceptability of many of the measures may hinge on the linkages and trade-offs that emerged during 10 years of talks in VEREX and the Ad Hoc Group.

The Green Paper's Proposed Measures

7. VERTIC's views on some of the proposals in the paper are as follows:

— *Investigations into suspected non-compliance with the Convention (alleged use of BW, misuse of facilities and suspicious outbreaks of disease).* It is commendable that the UK has extended the US proposal to include facility investigations. In the absence of viable alternatives, the existing mechanism which permits the UN Secretary-General to conduct investigations or fact-finding missions into the use of chemical and/or biological weapons should be strengthened, as the Green Paper suggests. A strengthened mechanism should unambiguously affirm that the Secretary-General may either conduct such investigations at the request of the General Assembly, the Security Council or a UN member state, or under his own authority under the UN Charter (as increasingly reinforced by custom). The mechanism should also be provided with the resources to maintain it in readiness. This should include keeping up to date and improving the roster of experts available for investigations and establishing codes of conduct and protocols for carrying such missions out. Ultimately, a professional inspectorate should be established. These tasks could be taken over by a BWC Secretariat if and when established (see below).

— *A convention on the physical protection of dangerous pathogens.* Such a convention should include mechanisms for establishing the veracity of information declared under its provisions and for quality control in implementing the standards that it establishes.

— *Revising the existing BWC Confidence-Building Measures.* Given the poor track record of compliance with the existing CBMs it is unlikely that simply expanding the declaration requirements will be sufficient to improve their quality, quantity or timeliness. Instead, the CBMs should be made legally-binding and expanded. The declarations should be translated into all official UN languages and compiled into a publicly accessible database.

— *Voluntary visits to facilities.* Visits to facilities declared under the CBMs or to other facilities could help increase transparency. In order to evaluate the usefulness of non-challenge on-site activities under a future verification regime such visits could follow the procedures envisaged in the Composite Text.

The Way Forward

8. Given the current hostility of the US to multilateral negotiations on a BW protocol and the apparent unwillingness of proponents of a protocol to proceed without the US, the outcome of the resumed session of the Review Conference in December 2002 is critical to the future of the BWC.

9. Although the collapse of the protocol negotiations was a major disappointment, and US behaviour in bringing it about is to be deplored, the logjam over the preservation of the mandate of the Ad Hoc Group should no longer be allowed to stand in the way of progress in strengthening the convention. This is especially because for many states parties including Russia, China, Iraq, Iran, India and Pakistan the current lack of progress suits their purposes in avoiding transparency, monitoring and verification. Moreover, the Ad Hoc Group, although it had major achievements to its credit, in the end produced a flawed draft that, at US behest, fell far short of what might be considered best practice in multilateral verification.

10. VERTIC's view is that if agreement on continuing or renewing the mandate of the Ad Hoc Group cannot be reached at the Review Conference, the Group should be wound up but ONLY if there is agreement on a package of measures that keeps state parties focused on the political, scientific and technological challenges facing the convention. Such a package should explicitly envisage the negotiation of partial, but legally-binding instruments (including those mentioned in the Green Paper) to meet such challenges. The package should, at a minimum, include:

— *Annual meetings of states parties.* Given the dynamic nature of political, scientific and technological challenges to the BWC, the international community cannot wait until the next Review Conference in 2006 to discuss measures to strengthen the treaty.

— *Inter-sessional expert groups.* These would make recommendations to annual meetings of states parties on key issues, including: new monitoring techniques and technologies for BWC verification; multilateral cooperation on transparent research for effective defences against biological weapons;

assistance for victims of BW attacks; and synergies between national, regional and multilateral efforts to prevent BW proliferation.

— *A standing Scientific Advisory Panel.* This should meet at least twice a year, to keep watch on the implications for the BWC of the exponential growth in scientific knowledge and its applications. As its first activity, the panel should be directed to oversee a scientific (double-blinded) study of the effectiveness of all types of on-site visits and inspections (including challenge) relevant to the BWC. Such a study should aim to address the controversy over the credibility of the respective UK and US studies in this area. (A model that the panel could emulate is the series of scientific studies on climate change by the International Panel on Climate Change (IPCC) conducted for the parties to the UN Framework Convention on Climate Change).

— *A BWC Secretariat.* Such a body would give institutional embodiment to the treaty. It could be mandated to receive, translate and archive CBM declarations; maintain the CBM database and website; publish an annual summary of CBM declarations; maintain and constantly update lists of possible BW inspectors for use by the UN Secretary-General; undertake research into inspection and fact-finding protocols; organise intersessional, annual and review meetings; and act as a clearinghouse for open source information from governments, industry and non-governmental organisations. The UK, as one of the BWC depositaries, could offer to host and provide facilities in London for such a Secretariat.

11. Both at the final meeting of the AHG and at the first session of the Review Conference the UK and its EU partners appear to have been caught flat-footed by US initiatives and manoeuvres, at least some of which were predictable. An active and coordinated role by the UK, the EU and other like-minded countries in the run-up to the resumed Review Conference and at the conference itself is essential. This should include the adoption of a new EU Common Position, the planning of strategies for likely alternative outcomes and pre-conference démarches to key countries.

12. Unanimity of all BWC state parties is not necessary for progress on the issues outlined above. Experience in the AHG and the Review Conference has shown that the attempt to reach consensus, including an effort to keep the US involved at all costs, can scupper agreement altogether. It also helps countries hiding behind the US position to avoid revealing their true preferences. Should the resumed session be faced with repeated US intransigence, it may be preferable to seek agreement without them. Given the current impasse, it is important to find alternative ways to strengthen the convention, while not closing the door on a resumption of future negotiations on a comprehensive verification regime.

VERTIC

3 September 2002

APPENDIX 4

Memorandum from Professor Graham Pearson, Department of Peace Studies, University of Bradford

Covering letter to Foreign and Commonwealth Office dated 26 June 2002

1. The Green Paper issued on 29 April 2002 solicited the views of Members of Parliament, NGOs, other organisations and individuals with an interest in this subject so that the options for strengthening the BTWC set out in this paper—or any other options that may be suggested—receive the widest possible consideration and debate before the reconvened Review Conference. We very much welcome the appearance of the Green Paper as it should provide a much needed impetus to restart progress towards a much needed strengthening of the BTWC.

2. I have much pleasure in enclosing copies of Review Conference Paper No 6 entitled "*Return to Geneva: The United Kingdom Green Paper*" which I have prepared to provide a detailed assessment and analysis of the Green Paper[1]. Copies will be posted on the Bradford Strengthening the Biological and Toxin Weapons Convention website and also circulated to the States Parties engaged in the Review Conference.

3. As I note in the Conclusions section of RCP No 6, the UK government, one of the three co-depositaries of the BTWC, is to be commended for the preparation of the Green Paper which provides a valuable insight into its views as to how the Biological and Toxin Weapons Convention should be strengthened which is a key element in its strategy against biological weapons. The Green Paper indentifies a range of the measures that could be deployed to strengthen the Convention. Regrettably, the Green Paper limits its consideration to measures which have been indentified by the UK, its EU partners, the US and academics in a number of countries and does not allude to the fact that several of the measures identified were also supported by other State Parties in their statements at the Fifth Review Conference in November 2001. It also does not mention other measures proposed by other States Parties at the Review Conference.

[1] Not printed. This document is posted on the website: www.bradford.ac.uk/acad/sbtwc/

4. In considering the forthcoming resumed Review Conference there would be significant benefit to be gained from creating a comprehensive list of the measures proposed to the Fifth Review Conference as this could then attract support from many States Parties as being a list that should be reviewed and taken further at a meeting subsequent to the Review Conference. This comprehensive list of measures should be developed and agreed by the Western Group in advance of the resumption of the Review Conference and the opportunity should be taken to see whether the Eastern Group would be willing to be associated with the comprehensive list. The list should be tabled by Australia on behalf of the Western Group as a Working Paper for the resumed Review Conference. The analysis of all these measures shows that some would require little or no negotiation prior to being taken forward whilst others would require negotiation. It is also evident that an interim supportive institution would be immensely beneficial in helping to nurture and sustain the Convention between the Review Conferences and could be highly effective in taking forward several of the proposed measures. Recommendations are made as to how the various measures might be efficiently progressed.

5. In addition, we greatly welcome the proposed annual meetings involving both those in government and in the non-government communities and suggest that there would be advantage in holding the first such meeting in October 2002—after the Foreign Office has received the comments on the Green Paper and prior to the resumption of the Review Conference on 11 November 2002.

Professor Graham Pearson

26 June 2002

Covering letter to Foreign and Commonwealth Office dated 15 August 2002

1. I have pleasure in sending you copies of:

Review Conference Paper No 7: *Return to Geneva: A Comprehensive List of Measures*[1]

This Paper goes beyond the ideas expressed in Review Conference Paper No 6, when I evaluated the recent Foreign Office Green Paper, by developing and considering a comprehensive list of the measures proposed by the States Parties either in their statements or in their papers to the initial session of the Fifth Review Conference in November 2002. My intention is to help the States Parties make progress at the resumption of the Review Conference towards strengthening of the BTWC regime through consideration of measures such as these at future meetings in 2003 and later years.

2. The analysis of all these measures in this Paper shows that these measures would in general not incur an unnecessary burden on legitimate activities yet they would bring benefits to the States Parties to the BTWC. It is also evident that an interim supportive institution or bureau would be immensely beneficial in helping to nurture and sustain the Convention between the Review Conferences and could be highly effective in taking forward several of the proposed measures. The States Parties at the resumption of the Fifth Review Conference on 11 November 2002 are urged to use such a comprehensive list of measures to strengthen the Convention as the basis for an agreement to take these forward through negotiation at meetings subsequent to the Review Conference supported by an interim supportive institution or bureau.

Professor Graham Pearson

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[1] Not printed. This document is posted on the website: www.bradford.ac.uk/acad/sbtwc/

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